1800

Online Time:

Subject:

RE: Search Request for app. #09/695,828



EIC3600 COMMERCIAL DATABASE SEARCH REQUEST

				Staff Use Only
RUSH - SPE signature	required:		Ac	cess DB#
Business Methods Case:			Log	g Number 40038
Write in 705 subclass(es) to s	earch required files for 7	05 cases or cases cross refe	renced in 705.	
Requester's Full Name:I	Forest Thompson E	xaminer # : <u>_76652</u> Da	te: <u>04/02/2003</u>	
Art Unit: 3625 Phone N	lumber <u>306-5449</u> S	erial Number: <u>09/695,8</u>	<u> </u>	
Bldg & Room #: _CPK5/7	X07 Results Form	nat Preferred: PAPER	DISK E-MA	AIL
If more than one searc	h is submitted, plea	ase prioritize searche	es in order of ne	ed.
Provide the PALM Bib Title of Invention: _Aut	page or the following omated System for	ng: <u>Conditional Order Tı</u>	ransactions in Se	curities or Other Items in
Commerce		•		
Inventors (provide full na	mes):Robert Scott Ni	ieboer; Pedro V. Balc	<u>arce; Ivan N. Zh</u>	idov; Micah James
Eldred				
Earliest Priority Filing	Date: <u>07/23/1999</u> (Parent App. #09/359,	<u>686 now patent #</u>	<u>(6,418,419)</u>
•	of the parts of this case	e that help explain or are claim(s) [not all of the cla	-	his search. Examples are:
between subscribers. The securities or contracts we the ability to purchase or system described include order, methods by which the execution of transact will execute transaction reported as prescribed by	d of automatically and especific embodime where the offer to purch sell other property of the system will materially the rules and regulation. A communicating transactions in sufocus on:	d anonymously buying out described in the discontant described in the discontant described in the discontant described in the actual purchase of the system will sort and the buy and sell orders ago conditions set by the hird parties such that the tions of the appropriate on system is described	closure relates to the ty may be conditioned as a le of other produced display the information and attempt to use subscriber, method as user is satisfied to regulatory body which allows substributes as a lower subscriber.	rmation available on each other markets to effect ods by which the apparatus
Buy sell	purchase	securities	contracts	
Searcher: Book Allintok Phone: 308 6150 Location: Ec 3600 Date Picked Up: 4-7-03 Date Completed: 4-7-03 Searcher Prep/Review: 60m Clerical:	04-03-03 AO?	TYPE OF SEARCH: Bibliographic: Litigation: Full text: ! Patent Family: Other:	·	VENDOR/COST (where applic.) STN: DIALOG: 81,301:2 Questel/Orbit: Westlaw Lexis/Nexis: WWW/Internet: Other (Specify):

Display and sort translation
Match buy and sell orders another Special Instructions or Other Comments

transistion conditions another conditions another conditions

user or teer or seller or subscriber

-----Original Message-----

From:

Thompson, Forest

Sent:

Wednesday, April 02, 2003 11:36 AM

To:

STIC-EIC3600

Subject:

Search Request for app. #09/695,828

<< File: Search Request 9695828.doc >>

Forest Thompson Jr.
Patent Examiner, AU 3625
U.S. Patent and Trademark Office
(703) 306-5449
forest.thompson@uspto.goy

Searcher:
Phone:
Location:
Date Picked Up:
Date Completed:
Searcher Prep/Review:
Clerical:
Online Time:

TYPE OF SEARCH:	
Bibliographic:	
Litigation:	
Full text:	
Patent Family:	
Other:	

VENDOR/COST (where applic.)
STN:
DIALOG:
Questel/Orbit:
Westlaw
Lexis/Nexis:
WWW/Internet:
Other (Specify):

Subject:

RE: Search Request for app. #09/695,828

EIC3600 COMMERCIAL DATABASE SEARCH REQUEST

RUSH - SPE signature	required:			Access DB	Use Only #
Business Methods Case:				Log Number	
Write in 705 subclass(es) to s	earch required files for 7	05 cases or cases cros	s referenced in 70	95.	
Requester's Full Name: _F Art Unit: 3625 Phone N Bldg & Room #: _CPK5/7	[umber <u>306-5449</u> S	erial Number: _09/	695,828_	2003 E-MAIL	
If more than one searc	h is submitted, ple	ase prioritize sea	rches in orde	r of need.	
Provide the PALM Bib Title of Invention: _Aut			er Transaction	ns in Securities	or Other Items in
Commerce	•				
Inventors (provide full nar	nes):Robert Scott Ni	eboer; Pedro V.	Balcarce; Ivan	N. Zhidov; Mi	cah James
Eldred	, —				
Earliest Priority Filing	Date: 07/23/1999 (Parent App. #09/	359,686 now n	natent #6.418.41	9)
• Please attach copies abstract, backg The claimed or appar An apparatus and method between subscribers. Th securities or contracts we the ability to purchase or system described include order, methods by which the execution of transaction are ported as prescribed by in the associated transact for the purpose of effecti This search should for the purpose of control of the purpose of control of transaction are ported as prescribed by in the associated transact for the purpose of effecting the purpose of control of the purpose of con	ent novelty of the dof automatically and especific embodime there the offer to pure sell other property of sell other property of the system will mate ons without violating and report prices to the the rules and regulation. A communicating transactions in surfocus on:	invention is: d anonymously bu nt described in the chase or sell the pro- r the actual purcha the system will so ch buy and sell ord g conditions set by nird parties such th tions of the approp on system is descr	tying and selling disclosure relatorers and display the subscriber at the user is so oriate regulator, ibed which allowed	ag positions in functions to the buying conditioned upon their property. So the information at to use other mater, methods by what is field and show the subscribers	angible properties g and selling of n factors such as pecifically, the available on each arkets to effect nich the apparatus t sales are g each subscriber
KEYWORDS: Buy sell	purchase	securities	con	tracts	
Searcher:Phone: Location: Date Picked Up: Date Completed: Searcher Prep/Review: Clerical: Online Time:	- E !	TYPE OF SEARCH: Bibliographic: Litigation: Full text: Patent Family: Other:		VENDO STN: _ DIALO Quest Westlav Lexis/ WWW	OR/COST (where applic.) G: el/Orbit: v Nexis: /Internet: Specify):

Display and sort transaction
Match buy and sell orders anoit hous
Special Instructions or Other Comments

conditions hous transactions

editionally purchase or sell er or seller or subscriber user or

----Original Message-----

From:

Thompson, Forest

Sent:

Wednesday, April 02, 2003 11:36 AM

To:

STIC-EIC3600

Search Request for app. #09/695,828 Subject:

<< File: Search Request 9695828.doc >>

Forest Thompson Jr.
Patent Examiner, AU 3625
U.S. Patent and Trademark Office
(703) 306-5449
forest.thompson@uspto.goy

Searcher:
Phone:
Location:
Date Picked Up:
Date Completed:
Searcher Prep/Review:
Clerical:
Online Time:

TYPE OF	SEARCH:
Bibliographic: _	
Litigation:	
Full text:	
Patent Family:	
Other:	

VENDOR/COST (V	where applic.)
STN:	
DIALOG:	
Questel/Orbit:	
Westlaw	
Lexis/Nexis:	
WWW/Internet:	
Other (Specify): _	

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             RTY OR DEALER? OR RETAILER? OR VENDOR? ? OR BROKER? ?
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                 S13 NOT PD=19990723:20030407
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                 RD (unique items)
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        2:INSPEC 1969-2003/Mar W5
           (c) 2003 Institution of Electrical Engineers
 File
       35:Dissertation Abs Online 1861-2003/Mar
           (c) 2003 ProQuest Info&Learning
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        99:Wilson Appl. Sci & Tech Abs 1983-2003/Feb
  File
           (c) 2003 The HW Wilson Co.
  File 233:Internet & Personal Comp. Abs. 1981-2003/Feb
           (c) 2003 Info. Today Inc.
  File 474: New York Times Abs 1969-2003/Apr 05
           (c) 2003 The New York Times
  File 475: Wall Street Journal Abs 1973-2003/Apr 04
           (c) 2003 The New York Times
  File 583: Gale Group Globalbase (TM) 1986-2002/Dec 13
            (c) 2002 The Gale Group
  File 256:SoftBase:Reviews,Companies&Prods. 82-2003/Feb
            (c) 2003 Info. Sources Inc
  File 139:EconLit 1969-2003/Mar
            (c) 2003 American Economic Association
```

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(Item 1 from file: 2)
DIALOG(R)File
              2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.
Title: Backing up the derivatives API
 Journal: Financial Technology Bulletin
                                           vol.16, no.17
 Publisher: Banking Technology,
 Publication Date: 8 June 1999 Country of Publication: UK
 ISSN: 0265-1661
 SICI: 0265-1661(19990608)16:17L.5:BD;1-6
 Material Identity Number: N744-1999-010
                     Document Type: Journal Paper (JP)
 Language: English
 Treatment: Practical (P)
 Abstract: The major futures exchanges have either published or are in the
process of publishing APIs to enable banks and brokerages to write directly
to their systems. Up until now these APIs have concentrated on linking the
front office trading systems to the exchange matching engines. For
        real time order fills and matches are essential. Now London's
trading,
Liffe has taken this a step further with the publication of an API for the
back office, to link the back office directly to Liffe's Trade Registration
System/Clearing Processing System (TRS/CPS). (O Refs)
  Subfile: D
                                                  trading
  Descriptors: electronic trading; securities
  Identifiers: futures exchanges; derivatives API; Liffe; back office;
Trade Registration System/Clearing Processing System
  Class Codes: D2050F (Financial markets)
  Copyright 1999, IEE
            (Item 2 from file: 2)
 17/5/2
               2:INSPEC
DIALOG(R) File
(c) 2003 Institution of Electrical Engineers. All rts. reserv.
         INSPEC Abstract Number: C1999-04-7120-050
6182309
 Title: Agent-mediated off-exchange trading
  Author(s): Weinhardt, C.; Gomber, P.
  Author Affiliation: Dept. of Inf. Syst., Giessen Univ., Germany
  Conference Title: Proceedings of the 32nd Annual Hawaii International
Conference on Systems Sciences. 1999. HICSS-32. Abstracts and CD-ROM of
              p.6 pp.
Full Papers
  Editor(s): Sprague, R.H., Jr.
  Publisher: IEEE Comput. Soc, Los Alamitos, CA, USA
  Publication Date: 1999 Country of Publication: USA
                                                        liii+341 pp.
                         Material Identity Number: XX-1999-00169
  ISBN: 0 7695 0001 3
                      Proceedings of HICSS 32 - 32nd Annual Hawaii
  Conference
               Title:
International Conference on System Sciences
                                   Conference Location: Maui, HI, USA
  Conference Date: 5-8 Jan. 1999
                       Document Type: Conference Paper (PA)
  Language: English
  Treatment: Practical (P)
  Abstract: We introduce a prototype approach to automate the off-exchange
trading via (intelligent) software agents. An innovative multi-agent based
trading system is presented that permits the trader to initiate automated
                     and/or dynamic negotiations
                                                     within a continuous
          auctions
                                 bond market. After deriving the main
                         in the
off-exchange trading
requirements for this approach, we give an insight into the system's
concept. (14 Refs)
  Subfile: C
  Descriptors: electronic commerce; electronic trading; Internet;
multi-agent systems; stock markets
```

Identifiers: prototype approach; off-exchange trading; software agents; multi-agent based trading system; automated single auctions; dynamic negotiations ; bond market; Internet Class Codes: C7120 (Financial computing); C6170 (Expert systems and

other AI software and techniques); C7210N (Information networks) Copyright 1999, IEE

(Item 3 from file: 2) 17/5/3

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

INSPEC Abstract Number: C1999-04-7120-002 6171015

Electronic call market for commodity transactions: design of Title: matching system computer-mediated order

Author(s): Ho Geun Lee; Lee, R.M.

Author Affiliation: Dept. of Bus. Adm., Yonsei Univ., Seoul, South Korea Journal: Journal of Organizational Computing and Electronic Commerce p.307-34 vol.8, no.4

Publisher: Lawrence Erlbaum Associates,

Publication Date: 1998 Country of Publication: USA

CODEN: JOCEFM ISSN: 1054-1721

SICI: 1054-1721(1998)8:4L.307:ECMC;1-H Material Identity Number: F382-1999-007

Document Type: Journal Paper (JP) Language: English

Abstract: Commodity exchanges provide potential market structures for trading because commodity products have relatively simple and well standardized product attributes. Most existing electronic trading systems are introduced for financial exchanges, where qualities of traded products (such as stocks and bonds) are homogeneous, thus taking into account only bid and offer prices for computer mediated order matching . However, a single commodity market, such as the cotton or grain market, is made up of many heterogeneous goods that are similar to each other but have different product qualities and contract terms. In addition to the price, commodity traders have other pertinent preference ranges over product attributes and delivery conditions . We delineate an electronic call market system for commodity trading, which optimizes the realization of traders' utilities over extended product attributes beyond the price. The electronic call market not only maximizes the total surplus of market participants based on bid and ask prices but also satisfies their qualitative preferences over other attributes, which are difficult to in the quantitative prices. The trading mechanism of the electronic call market integrates an economic auction model with a social include choice model to produce a Pareto improved transaction. Market simulations are conducted to validate the performance of the proposed electronic call matching system of the electronic call market is order market. The implemented using constraint logic programming. (46 Refs)

Descriptors: commodity trading; constraint handling; economics;

electronic trading

Identifiers: electronic call market; commodity transactions; computer matching system; commodity exchanges; market structures; electronic trading; standardized product attributes; financial exchanges; mediated order single commodity market; cotton; grain market; heterogeneous goods; product qualities; contract terms; commodity traders; preference ranges; product attributes; delivery conditions; market participants; qualitative preferences; quantitative prices; trading mechanism; economic auction model ; social choice model; Pareto improved transaction; market simulations; constraint logic programming

```
Class Codes: C7120 (Financial computing); C6110L (Logic programming);
C7810 (Social and behavioural sciences computing)
  Copyright 1999, IEE
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 17/5/4
DIALOG(R)File
               2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.
          INSPEC Abstract Number: A9715-3115-004
                         order for some controversial canonical molecular
                 bond
  Title:
         Lewis
orbitals
  Author(s): Tse-Chiang Chang
  Author Affiliation: Dept. of Chem., Nat. Cheng Kung Univ., Tainan, Taiwan
                       vol.391, no.1-2
                                          p.151-7
  Journal: THEOCHEM
  Publisher: Elsevier,
  Publication Date: 28 Feb. 1997 Country of Publication: Netherlands
  CODEN: THEODJ ISSN: 0166-1280
  SICI: 0166-1280(19970228)391:1/2L.151:LBOS;1-6
  Material Identity Number: A759-97011
  U.S. Copyright Clearance Center Code: 0166-1280/97/$17.00
  Document Number: S0166-1280(96)04794-X
                       Document Type: Journal Paper (JP)
  Language: English
  Treatment: Theoretical (T)
             The Lewis structure, consisting of core, lone-pair and
bonding-type localized molecular orbitals, can give an unambiguous bonding
picture and an intuitive bond order . Therefore a new scale of bond
                            order , can be assigned to localized molecular
         , the Lewis bond
orbitals in terms of intuitive Lewis structures. The Lewis bond
of canonical molecular orbitals can be obtained by expanding them into
localized molecular orbitals with the assigned Lewis bond
                                                             orders . Test
calculations have been performed for the molecules N/sub 2/, O/sub 2/,
F/sub 2/, P/sub 2/, S/sub 2/, CO, CS, NO and SO, whose Hartree-Fock wavefunctions can be well localized. The total Lewis bond orders of
 these molecules turn out to be exactly the bond orders revealed by the
 Lewis structures. For canonical molecular orbitals with an ambiguous
 bonding nature, e.g. 2 sigma /sub g/, 2 sigma /sub u/, and 3 sigma /sub g/
 of the molecule N/sub 2/, their Lewis bond orders
                                                          match quite well
 with the photoelectron spectroscopy results. (21 Refs)
   Subfile: A
   Descriptors: bonds (chemical); carbon compounds; fluorine; HF
 calculations; molecular electronic states; nitrogen; nitrogen compounds;
 orbital calculations; oxygen; phosphorus; sulphur; sulphur compounds; wave
                              order ; canonical molecular orbitals; Lewis
   Identifiers: Lewis bond
 structure; core localized molecular orbitals; lone-pair localized molecular
 orbitals; bonding-type localized molecular orbitals; N/sub 2/; O/sub 2/;
 F/sub 2/; P/sub 2/; S/sub 2/; CO; CS; NO; SO; Hartree-Fock wavefunctions;
 photoelectron spectroscopy
   Class Codes: A3115 (General mathematical and computational developments
 for atoms and molecules); A3120 (Specific calculations and results for
 atoms and molecules)
   Chemical Indexing:
   N2 el - N el (Elements - 1)
                             1)
   O2 el - O el (Elements -
   F2 el - F el (Elements -
                             1)
   P2 el - P el (Elements -
                             1)
   S2 el - S el (Elements -
                             1)
   CO bin - C bin - O bin (Elements -
   CS bin - C bin - S bin (Elements -
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NO bin - N bin - O bin (Elements - 2)
SO bin - O bin - S bin (Elements - 2)
Copyright 1997, IEE
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17/5/5 (Item 5 from file: 2)

DIALOG(R) File 2: INSPEC

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5377522 INSPEC Abstract Number: C9611-7120-002

Title: Alternative securities trading systems: tests and regulatory implications of the adoption of technology

Author(s): Clemons, E.K.; Weber, B.W.

Author Affiliation: Dept. of Oper. & Inf. Manage., Pennsylvania Univ., Philadelphia, PA, USA

Journal: Information Systems Research vol.7, no.2 p.163-88

Publisher: Inst. Oper. Res. & Manage. Sci,

Publication Date: June 1996 Country of Publication: USA

CODEN: ISYREH ISSN: 1047-7047

SICI: 1047-7047(199606)7:2L.163:ASTS;1-J

Material Identity Number: E442-96002

Language: English Document Type: Journal Paper (JP)

Treatment: General, Review (G)

Reasons for the mixed reactions to today's electronic off-exchange trading systems are examined, and regulatory implications are explored. IT could provide more automated markets, which have lower costs. trading system to form a liquid and widely used electronic Yet for an market, a sufficient number of traders would need to make a transition away from established trading venues and to this alternative way of trading. This transition may not actually occur for a variety of reasons. Two tests are performed of the feasibility and the desirability of transitions to new markets. In the first test, traders in a series of economic experiments demonstrate an ability to make a transition and develop a critical mass of trading activity in a newly opened market. In the second test, simulation is used to compare the floor-based specialist auction in place in most US exchanges today to a disintermediated alternative employing matching . The results indicate that reducing the order screen-based role of dealer-intermediaries can actually diminish important measures of market quality. Our findings suggest that the low trading volumes on many off-exchange systems do not result from traders' inability to break away from established trading floors. Rather, today's off-exchange trading systems are not uniformly superior to the trading mechanisms of traditional exchanges. Thus, regulatory actions favoring off-exchange trading systems are not warranted; but improved designs for IT-based trading mechanisms are and when these are available, they are likely to win significant trading volume from established exchanges. (34 Refs)

Subfile: C

Descriptors: electronic trading; information technology; legislation; securities trading

Identifiers: securities trading systems; regulatory implications; technology adoption; electronic off-exchange trading systems; automated markets; costs; established trading venues; market transition; economic experiments; simulation; trading activity critical mass; floor-based specialist auction; US stock exchange; disintermediated alternative; screen-based order matching; dealer-intermediates; market quality measures; trading volumes; IT-based trading mechanisms; experimental economics; financial market simulation

Class Codes: C7120 (Financial computing); C0230B (Legal aspects of computing)

Copyright 1996, IEE

```
Title: London's split over electronic trading
 Author(s): Schmerken, I.
                                                      p.22, 24, 26
                                     vol.14; no.2
 Journal: Wall Street & Technology
 Publisher: Miller Freeman,
 Publication Date: Feb. 1996 Country of Publication: USA
 CODEN: WSTEE5 ISSN: 1060-989X
 SICI: 1060-989X(199602)14:2L.22:LSOE;1-R
 Material Identity Number: P708-96005
                     Document Type: Journal Paper (JP)
 Language: English
 Treatment: Practical (P)
 Abstract: Acrimony has erupted between the established British market
makers who oppose a new electronic trading system, and the American
brokers and European owned trading houses who want to see more electronic
price dissemination and a fully automated order matching system. The
                Exchange is trying to hold the investment and trading
        Stock
community together, while protecting the preeminent position of the
exchange in U.K. and international securities
                                                            (O Refs)
                                                trading .
  Subfile: D
  Descriptors: electronic trading; investment; securities
 Identifiers: electronic trading system; electronic price
                                       matching system; London Stock
dissemination; fully automated order
Exchange; trading community; investment community; international
            trading; UK securities trading
securities
  Class Codes: D2050F (Financial markets)
  Copyright 1996, IEE
            (Item 7 from file: 2)
 17/5/7
DIALOG(R) File
               2:INSPEC
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5319385
  Title: Voice recognition speeds order entry for Bear Stearns [Brokerage
firml
  Journal: Communications News
                                 vol.33, no.5
                                                 p.20
  Publisher: Nelson Publishing,
  Publication Date: May 1996 Country of Publication: USA
  CODEN: CMUNA9 ISSN: 0010-3632
  SICI: 0010-3632(199605)33:5L.20:VRSO;1-Q
  Material Identity Number: F947-96006
  Language: English
                      Document Type: Journal Paper (JP)
  Treatment: Practical (P)
  Abstract: On Wall Street, the difference between profit and loss is often
measured in seconds. Traditional ways of executing orders-punching them
into a PC, shouting across the room or writing tickets for clerks to
enter-can mean precious seconds wasted for equity and bond
                                                              traders . To
gain an advantage in this competitive market, Bear Stearns, the $3.8
billion New York brokerage firm, is gradually replacing its older trading system with a fully automated trading order /entry match and message
system called BNS (Bear Network System). To enhance this network and
increase trader productivity, Bear Steams asked Ficomp Systems Inc. (FSI),
a Dayton, NJ, systems integrator, to develop a voice recognition system
that would work in a trading room environment. (O Refs)
```

(Item 6 from file: 2)

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17/5/6

DIALOG(R)File 2:INSPEC

Subfile: D Descriptors: electronic trading; securities trading; speech

Identifiers: Bear Stearns; Wall Street; voice recognition; order entry; recognition order execution; equity traders; bond traders; New York brokerage firm; trading system; fully automated trading order /entry match and message system; BNS; Bear Network System; trader productivity; Ficomp Systems; systems integrator; trading room environment

Class Codes: D2050F (Financial markets); D3060 (Voice equipment, dictation)

Copyright 1996, IEE

(Item 8 from file: 2) 17/5/8

2:INSPEC

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INSPEC Abstract Number: C9503-7120-026

Title: Trade execution costs and disintermediated order crossing systems on the London Stock Exchange

Author(s): Weber, B.W.

Author Affiliation: Dept. of Inf. Syst., New York Univ., NY, USA

p.950-9 vol.4 Part vol.4

Editor(s): Nunamaker, J.F., Jr.; Sprague, R.H., Jr.

Publisher: IEEE Comput. Soc. Press, Los Alamitos, CA, USA

1995 Country of Publication: USA 5 vol. Date: Publication (x+361+xv+762+xv+600+xx+1042+x+362) pp.

ISBN: 0 8186 6945 4

U.S. Copyright Clearance Center Code: 1060-3425/95/\$4.00 Conference Title: Proceedings of the Twenty-Eighth Annual Hawaii International Conference on System Sciences

Conference Sponsor: Univ. Hawaii; Univ. Hawaii Coll. Bus. Admin.; IEEE Comput. Soc.; ACM; PRISM

Conference Date: 3-6 Jan. 1995 Conference Location: Wailea, HI, USA Document Type: Conference Paper (PA) Language: English

Treatment: Practical (P)

Abstract: The growth of alternative trading systems that compete with markets will have profound effects on many securities stock established exchanges and their member firms. New screen-based markets directly without the involvement of a broker or a dealer, saving intermediation costs such as the bid-ask spread and broker orders commission costs. Competing market makers operating on the London Stock Exchange's SEAQ market provide an intermediated "quote-driven" trading mechanism, but the approaching roll-out of several alternatives will provide investors with new opportunities to trade without market makers. A model of order arrival, information change, and trading in a competing dealer market based on SEAQ is used to examine the consequences of "disintermediated" trading systems. The results indicate low-cost trading systems reduce dealing margins and the role of intermediaries. While alternative trading system lessen the transactions costs borne by some traders, those requiring immediate execution and dealer intermediation may pay more in future marketplaces. (17 Refs)

Subfile: C

Descriptors: commerce; costing; economics; electronic trading;

securities trading

Identifiers: disintermediated order crossing systems; trade execution costs; securities exchanges; screen-based markets; investors' orders; intermediation costs; bid-ask spread; broker commission costs; SEAQ market; quote-driven trading mechanism; order arrival; information change; competing dealer market; low-cost trading systems; transactions costs

Class Codes: C7120 (Financial computing) Copyright 1995, IEE

(Item 9 from file: 2) 17/5/9 DIALOG(R)File 2:INSPEC (c) 2003 Institution of Electrical Engineers. All rts. reserv. INSPEC Abstract Number: C9407-7120-012 Title: Evaluating the prospects for alternative electronic securities 4681369 markets Author(s): Clemons, E.K.; Weber, B.W. Author Affiliation: Wharton Sch., Pennsylvania Univ., Philadelphia, PA, Editor(s): DeGross, J.I.; Benbasat, I.; DeSanctis, G.; Beath, C.M. Publisher: ACM, Baltimore, MD, USA Publication Date: 1991 Country of Publication: USA xxii+420 pp. Conference Title: Proceedings of ICIS 91: 12th International Conference on Information Systems Conference Sponsor: Soc. Inf. Manage.; TIMS; ACM; IFIP Conference Location: New York, NY, Conference Date: 16-18 Dec. 1991 Document Type: Conference Paper (PA) USA Language: English Treatment: General, Review (G) Abstract: Two alternative trading mechanisms for securities markets

are compared using laboratory experimentation and computer simulation. One mechanism is the floor-based specialist auction in place in most U.S. stock exchanges today, and the other is an electronic alternative employing matching . We conclude that transition from the order established floor-based exchanges to potentially superior electronic alternatives is possible, despite the inertia resulting from the experience of benefits investors trading in active markets, and that current proposals markets are not demonstrably superior on generally used to assess market quality. This has clear electronic implications for established stock exchanges, market regulators, and vendors of electronic trading systems. (26 Refs)

Descriptors: digital simulation; electronic trading; securities

Identifiers: alternative electronic securities markets; trading mechanisms; computer simulation; floor-based specialist auction; US stock exchanges; automatic order matching; benefits investors; market quality ; market regulators; vendors; electronic trading systems Class Codes: C7120 (Finance)

(Item 10 from file: 2) 17/5/10

2:INSPEC DIALOG(R)File

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4563341

Title: Easing the bond burden (bond trading)

Author(s): Steinborn, D.

vol.30, no.10 p.47, 49 Journal: Bank Systems + Technology

Publication Date: Oct. 1993 Country of Publication: USA

CODEN: BSYTEE ISSN: 1045-9472

Document Type: Journal Paper (JP) Language: English

Treatment: Practical (P)

Abstract: Competing against big investment houses to offer

trading services has never been easy for commercial banks the likes of \$17.9 billion-asset Glendale Federal Bank. GlenFed's means of success is pretty straightforward. Rather than relying on the big broker/dealers who supplied the bank with bond listings to fax over inventories to the bank, GlenFed found a better way in a software program developed by Bond Express. The product, also called Bond Express, is designed specifically to allow trading desks to access quickly thousands of bond offerings and match them with their clients 'needs. (0 Refs)

Subfile: D

Descriptors: electronic trading; investment

Identifiers: investment; bond trading services; Glendale Federal Bank

; Bond Express

Class Codes: D2050F (Financial markets)

17/5/11 (Item 11 from file: 2)

DIALOG(R) File 2: INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

04347067

Title: Off-exchange trading chips away at NYSE volume

Author(s): Schmerken, I.

Journal: Wall Street & Technology vol.10, no.4 p.42-4, 46-8

Publication Date: Dec. 1992 Country of Publication: USA

CODEN: WSTEE5

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: Away from the frantic deal making on the floor of the New York Stock Exchange (NYSE), other avenues for trading NYSE-listed stocks have offered institutional investors cheaper and faster alternatives. Third-market firms electronic crossing networks and internal order - matching systems within trading firms have been growing in volume. In the short term, while the Big Board need not fear losing all its business to off-exchange competition, it, too, has been looking over its shoulder and implementing its own crossing sessions. Over the long haul, the volume movement away from exchanges may wind up altering the structure of the equities markets and have an impact on setting prices. (O Refs)

Subfile: D

Descriptors: electronic trading; stock markets

Identifiers: third market firms; New York Stock Exchange; electronic

crossing networks; internal order - matching systems

Class Codes: D2050F (Financial markets)

17/5/12 (Item 12 from file: 2)

DIALOG(R) File 2: INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03932684 INSPEC Abstract Number: D91002033

Title: Exercising new options (Chicago exchange)

Author(s): Penrose, P.

Journal: Banking Technology vol.8, no.5 p.36, 38 Publication Date: May 1991 Country of Publication: UK

CODEN: BATEEM ISSN: 0266-0865

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: The Chicago Board Options Exchange has the largest installation of terminals in the US. The Globex system, to be designed and implemented over the next two years, will provide order entry, routing, negotiation and execution. The CBOE will build the trading system that the three

exchanges will use, while Reuters will build the communications network through which Reuters terminals will interface with the system host. The CBOE and Amex will eventually trade all of their options over the system, while the Chicago Stock Exchange intends to offer US-traded stocks.

(0 Refs)

Subfile: D

Descriptors: electronic trading; stock markets

Identifiers: Chicago Board Options Exchange; Globex system; trading

system; Reuters

Class Codes: D2050F (Financial markets)

17/5/13 (Item 13 from file: 2)

DIALOG(R) File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03931657 INSPEC Abstract Number: D91002021

Title: The Big Board: boxed in by automation (New York Stock Exchange)

Author(s): Forsythe, J.

Journal: InformationWEEK no.321 p.46-7, 50, 54, 56-7 Publication Date: 20 May 1991 Country of Publication: USA

CODEN: INFWE4 ISSN: 8750-6874

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: While much of the securities industry has long since been put on computer screens, the key event in every trade-the negotiation between buyer and seller-is still done the old-fashioned way at the New York Stock Exchange: face-to-face, or telephone-to-telephone. This heel-dragging, a textbook study in how politics and inertia can undo the benefits of technology, could very well jeopardize the NYSE's future. The NYSE has already been hurt by the advent of electronic 'black boxes', which automate the point of sale by matching buy-and-sell orders electronically. Moreover, electronic trading systems make global investing easier and retaining loyal investors harder. That's bad news for virtual monopolies such as the NYSE. (0 Refs)

Subfile: D

Descriptors: electronic trading; securities trading; stock markets Identifiers: off board trading; electronic black boxes; Big Board; automation; New York Stock Exchange; securities industry; politics; point of sale; electronic trading; global investing

Class Codes: D2050F (Financial markets)

17/5/14 (Item 14 from file: 2)

DIALOG(R) File 2: INSPEC

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03624888 INSPEC Abstract Number: C90035678, D90001304

Title: NORDEX: automated trading for Nordic equities

Author(s): Perkins, F.J.

Conference Title: Computers in the City 89. Proceedings of the Conference p.53-61

Publisher: Blenheim Online, Pinner, UK

Publication Date: 1989 Country of Publication: UK xii+456 pp.

ISBN: 0 86353 191 1

Conference Date: 14-16 Nov. 1989 Conference Location: London, UK

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: The Transvik Market System has been developed as an advanced, automated market trading system. It is unique in having a totally generic

design, rather than being based on an existing exchange. In 1989, it had its first implementation in London as NORDEX, for the trading of Nordic equities. NORDEX combines, in one luser workstation, all market information, decision support, trade execution and user information management. Not to be confused with trade support systems, NORDEX was designed to completely replace the telephone market, within a fully automated infrastructure. It matches bids and offers in an anonymous, totally neutral environment. Sophisticated options allow the trade to control orders, emulating the best features of 'open outcry' and auction markets. The service operates on a cluster of DEC VAX computers, connected on a local area network which itself is extended to intelligent trader workstations in several countries. The author discusses the design goals for NORDEX, and reports on early experience with the new system. (O Refs) Subfile: C D

Descriptors: decision support systems; local area networks; securities trading; workstations

Identifiers: Nordic equities; Transvik Market System; automated market trading system; totally generic design; NORDEX; Nordic equities; user workstation; market information; decision support; trade execution; user information management; trade support systems; telephone market; fully automated infrastructure; bids; offers; totally neutral environment; open outcry; auction markets; DEC VAX computers; local area network; intelligent trader workstations

Class Codes: C7120 (Finance); C7102 (Decision support systems); C5620L (Local area networks); D2050F (Financial markets); D2010 (Business and professional); D5020 (Networks and inter-computer communications)

17/5/15 (Item 15 from file: 2)

DIALOG(R) File 2: INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03527621 INSPEC Abstract Number: D90000267

Title: Networks cross Wall Street

Journal: InformationWEEK no.240 p.40-44

Publication Date: 9 Oct. 1989 Country of Publication: USA

CODEN: INFWE4 ISSN: 8750-6874

Language: English Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: **Traders** at the New York **Stock** Exchange (NYSE) who want to keep going after the standard 390 minutes have more options than ever before, not only on other exchanges, but also on computerized 'crossing' networks that allow institutional investors to trade directly with each other without using an exchange. In a crossing network, investors send buy-and-sell orders to a central computer, which then matches them with corresponding orders from other investors. All trading is done anonymously and at a fixed price. And because investors can use these networks to trade directly among themselves, they don't pay any commission to a broker. (O Refs)

Subfile: D

Descriptors: computer **networks**; stock markets

Identifiers: computerised crossing networks; Wall Street; New York

Stock Exchange; investors; computer; trading

Class Codes: D2050F (Financial markets); D5020 (Networks and

inter-computer communications)

17/5/16 (Item 16 from file: 2)

DIALOG(R) File 2: INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03508652 INSPEC Abstract Number: D90000067

Title: New automated market launched for Nordic stock

Journal: Electronic Banking & Finance vol.6, no.8 p.2-3 Publication Date: Oct. 1989 Country of Publication: Netherlands

CODEN: EBFIE4 ISSN: 0265-9239

U.S. Copyright Clearance Center Code: 0265-9239/89/\$0.00+2.20

Language: English Document Type: Journal Paper (JP)

Treatment: General, Review (G); Practical (P)

Abstract: A new automated marketplace has been launched by a London financial systems firm to enable shares in 51 Nordic companies (i.e. companies based in Denmark, Finland, Norway and Sweden) to be traded electronically anywhere in the world. The new screen-based marketplace, branded 'Nordex', matches bid and offer orders between counterparties in less than a second, and confirms details of trade to the parties involved and to the official market. Nordex has been launched by London company Transvik, part of the Swedish-based Invik-Kinnevik group. Nordex is a specific branding of the Transvik Market System; an automated trading framework that has been developed by Transvik's sister operation in the US-New York-based Transvik Inc.-over three years. (0 Refs)

Subfile: D

Descriptors: electronic trading; securities trading

Identifiers: automated market; shares; Nordic companies; Nordex;

Invik-Kinnevik group; Transvik Market System
Class Codes: D2050F (Financial markets)

17/5/17 (Item 1 from file: 35)

DIALOG(R)File 35:Dissertation Abs Online

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01804565 ORDER NO: AADAA-19942967

EXECUTION PERFORMANCE OF ELECTRONIC CALL MARKETS (CALL MARKETS, ORDER MATCHING)

Author: MCCORMICK, D. TIMOTHY

Degree: PH.D. Year: 1999

Corporate Source/Institution: UNIVERSITY OF MARYLAND COLLEGE PARK (0117)

Adviser: FRANK B. ALT

Source: VOLUME 60/08-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 4043. 184 PAGES

Descriptors: STATISTICS; ECONOMICS, FINANCE

Descriptor Codes: 0463; 0508

This dissertation finds that the probability of execution in electronic call markets is dependent on the matching algorithm used and the characteristics of underlying order flow. A high probability of execution can be achieved for electronic call markets using standard matching algorithms when the arrival rate of orders is high and users have a good idea of the range of prices for the security. A high probability of execution in an electronic call market is more difficult to achieve when the arrival rate of orders is low. In these cases, the choice of matching algorithm is very important. The addition of a market making function to the electronic call increases the probability of execution to reasonable levels. Also, using a variable time period for the batching of orders that is dependent on the number of orders entered into the system increases the probability of execution to reasonable levels.

Electronic call markets can provide the execution quality and the timely, reliable execution needed to satisfy investors. Most of the academic literature has focused on the better execution prices that

investors <italic>can</italic> obtain from electronic call markets. Few, if any, have focused on the other important factor needed for a successful electronic call market - timely, reliable execution of orders. The dissertation focuses on the timely, reliable execution aspects of call markets under different order flow characteristics and different execution algorithms. A number of execution algorithms, those that are most likely to be used in practice, are evaluated. Closed form mathematical solutions are obtained in some simple cases and simulations are run for more complex environments.

The dissertation develops a more complicated model than the ones in current literature by considering the distributions of order size, order arrival, and order price congruently into one model. This results in providing valuable, realistic information to other academics, securities regulators, and investors on the best implementation of these systems in the current market environment. Additionally, the dissertation provides information on the current **order** flow characteristics of Nasdaq securities that are not contained in the literature to date.

17/5/18 (Item 1 from file: 99)

DIALOG(R) File 99: Wilson Appl. Sci & Tech Abs (c) 2003 The HW Wilson Co. All rts. reserv.

1846296 H.W. WILSON RECORD NUMBER: BAST98081008

Creating electronic markets

Fan, Ming; Stallaert, Jan; Whinston, Andrew B Dr. Dobb's Journal v. 23 noll (Nov. '98) p. 52+

DOCUMENT TYPE: Feature Article ISSN: 1044-789X LANGUAGE: English

RECORD STATUS: Corrected or revised record

ABSTRACT: The authors describe a web -based financial bundle-trading system developed in response to the Federal Energy Regulatory Commission's call for the adoption of the Internet as a universal commerce platform. The financial markets are accessed by Java applets embedded in web browsers. Communication between traders and the market is interactive and dynamic and can take place at any time. The system takes orders, finds matches, calculates prices, and clears the market. It can deal not only in commodities, but also in stocks, bonds, futures, and foreign currencies.

DESCRIPTORS: Financial software; Online securities trading;
Distributed data processing;

17/5/19 (Item 1 from file: 233)

DIALOG(R) File 233: Internet & Personal Comp. Abs.

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00522760 99IY01-205

E- Trade teams up to underwrite stocks -- An investment banking venture and a foray into electronic trading show the online broker's big ambitions

Barnett, Megan

The Industry Standard , January 25, 1999 , p27, 1 Page(s)

ISSN: 1098-9196

Company Name: E-Trade; Goldman Sachs; Archipelago

Product Name: E-Offering; Archipelago; Archipelago; Archipelago;

E-Trade

Languages: English

Document Type: Articles, News & Columns

Geographic Location: United States

Reports pioneer Internet brokerage E-Trade plans bold yet risky moves in offering investors access to initial public offerings (IPOs) and providing the opportunity to trade stocks without the help of an intermediary. States that E-Trade will link with Sandy Robertson and Walter Cruttenden to create a full service online investment bank called E-offerings, which will use the Internet to sell stocks and to provide research information. Says the bank will compete with institutional trading businesses by offering lower prices. Reports a second move will be to invest with Goldman Sachs in Archipelago, an electronic communications network . Says the order matching system will save money by instantly executing trades without the help of a market maker. Says the moves will strengthen the company's considerable position though it is far from certain these new areas can be as readily conquered. Includes one photo.

Descriptors: **Electronic** Banking; Investment; Stock Market; **Electronic** Commerce; Business; Corporate Strategy; Reports Identifiers: E-Offering; Archipelago; Archipelago; Archipelago; E-Trade; E-Trade; Goldman Sachs; Archipelago

17/5/20 (Item 2 from file: 233)

DIALOG(R) File 233: Internet & Personal Comp. Abs.

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00504784 98CW08-406

Business process software pays off

Jacobs, April

Computerworld , August 31, 1998 , v32 n35 p33-37, 2 Page(s)

ISSN: 0010-4841

Company Name: Green Mountain Coffee; PeopleSoft

Languages: English

Document Type: Articles, News & Columns

Geographic Location: United States

Presents a profile of Green Mountain Coffee Inc.'s conversion from an aging DOS-based system to business process software from PeopleSoft Inc. Says that the company, which does 90 percent of its business in mail order and wholesale, has been growing at about 30 percent per year for the past five years, and needed the means to interact with suppliers and manage distribution centers more efficiently. Reports that the new system increases order accuracy, reduces order checking time spent, and automates the process of matching orders with in-stock products. Adds, the company will close or sell its retail stores. Notes that it is working with PeopleSoft to develop an electronic commerce application that it will use to establish an online consumer business. Includes one photo. (JC)

Descriptors: Case Study; Business; Interactivity; **Electronic** Commerce; Mail Order; Productivity Software

Identifiers: Green Mountain Coffee; PeopleSoft

17/5/21 (Item 3 from file: 233)

DIALOG(R)File 233:Internet & Personal Comp. Abs.

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00321671 93WT08-015

Trading software for bonds

Wall Street & Technology , August 1, 1993 , v11 n2 p43, 1 Page(s)

ISSN: 0738-4343

Company Name: Bond Express Product Name: Bond Express

Languages: English

Document Type: Product Announcement Geographic Location: United States

Reports that Bond Express Inc. of San Diego, CA (619) has introduced Bond Express (\$550 per month, stand-alone version; \$950 per month, networked version), a new trading program that allows the bond trading desks of brokers/dealers to access bond offers quickly and match them with client needs. Says it is an automated online data retrieval system updated at 4:30 AM and 8:30 AM daily. (SSS)

Descriptors: Financial Analysis; Stock Market; Online Information;

Information Retrieval

Identifiers: Bond Express; Bond Express

17/5/22 · (Item 4 from file: 233)

DIALOG(R) File 233: Internet & Personal Comp. Abs.

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00298021 \ 92WS12-102

Off-exchange trading chips away at NYSE volume -- As off-exchange volume gradually grows, the structure of the US stock market and the role of the New York Stock Exchange may be ...

Schmerken, Ivy

Wall Street Computer Review, December 1, 1992, v10 n4 p42-448, 6 Page(s)

ISSN: 0738-4343 Languages: English

Document Type: Feature Articles and News

Geographic Location: United States

Presents an overview of alternative trading venues for transactions in New York Stock Exchange (NYSE)-listed stocks such as third-market firms, electronic crossing networks and internal order - matching systems. Examines factors spurring the migration of institutional investors toward off-exchange trading networks . Discusses various incentives offered by third-market firms, whose clients include leading NYSE members, to investors in general; examines operations of several third-market and Discusses how the growing demand for firms. off-exchange trading off-exchange services along with NYSE's reaction to the increase in of its securities might affect the structure of trading off-exchange the US equity markets. One sidebar takes a look at the impact of third markets while another examines a practice of the NYSE in which it withholds quotes between best bids and offers from the trading public. Includes four photos. (PAM)

Descriptors: Online Information; Competition; Stock Market; Trade Secrets

17/5/23 (Item 1 from file: 474)

DIALOG(R) File 474: New York Times Abs

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01007230 NYT Sequence Number: 045171800208

(Federal Reserve Board restructures its monetary statistics to reflect changes in banking system. Action, which is not expected to alter its policies, is Fed's first sweeping revision of figures in more than 10 years and is aimed at taking into account growth of interest-bearing checking, automatic bank transfer services and mutual funds' check-writing privileges. New measures, in general, seek to regroup already existing and new forms of money into two broad divisions, namely, funds used to conduct transactions and funds held for longer term. Changes detailed (M).)

RATTNER, STEVEN

New York Times, Col. 3, Pg. 1, Sec. 4

Friday February 8 1980

DOCUMENT TYPE: Newspaper JOURNAL CODE: NYT LANGUAGE: English

RECORD TYPE: Abstract

COMPANY NAMES: FEDERAL RESERVE SYSTEM

DESCRIPTORS: BANKS AND BANKING; CASH MANAGEMENT FUNDS; CHECKS AND CHECKING ACCOUNTS; CREDIT (GENERAL); CURRENCY; ELECTRONIC FUNDS TRANSFER SYSTEMS (EFTS); MONEY SUPPLY; MUTUAL FUNDS; NEGOTIATED ORDERS OF WITHDRAWAL (NOW ACCOUNTS); REFORM AND REORGANIZATION (INSTITUTIONAL); STATISTICS

(GENERAL)

PERSONAL NAMES: RATTNER, STEVEN

17/5/24 (Item 2 from file: 474)

DIALOG(R) File 474: New York Times Abs

(c) 2003 The New York Times. All rts. reserv.

00886237 NYT Sequence Number: 071989780508

US moves toward ending prohibition on interest-bearing checking accounts. Federal Reserve and Federal Deposit Insurance Corp (FDIC) have approved regulations that would allow commercial banks and most US savings banks to offer customers automatic transfer of funds to checking accounts from savings accounts to cover overdrafts. Other means of skirting 45-year-old prohibition include paying bills by telephone, transferring funds between accounts by telephone or with 'debit card,' issuing credit union share drafts and allowing checks to be drawn on money-market mutual funds. Some bankers believe savings associations' unhappiness with recent action by Federal Reserve and FDIC could revitalize stalled legislation on NOW accounts. NOW accounts are savings accounts against which check-like negotiable order of withdrawal can be written as easily as check. Photo illustration, list of ways to earn interest on checking or transaction balance account (M).)

MILLETTI, MARIO A

New York Times, Col. 2, Pg. 1, Sec. 4

Monday May 8 1978

DOCUMENT TYPE: Newspaper JOURNAL CODE: NYT LANGUAGE: English

RECORD TYPE: Abstract

DESCRIPTORS: BANKS AND BANKING; BONDS (GOVERNMENT); CASH MANAGEMENT FUNDS; CHECKS AND CHECKING ACCOUNTS; CREDIT CARDS AND ACCOUNTS; CREDIT UNIONS; CUSTOMER BANK COMMUNICATION TERMINALS; ELECTRONIC FUNDS TRANSFER SYSTEMS (EFTS); INTEREST (MONEY); LAW AND LEGISLATION (FEDERAL); MUTUAL FUNDS; NEGOTIATED ORDERS OF WITHDRAWAL (NOW ACCOUNTS); SAVINGS ACCOUNTS AND CERTIFICATES; SAVINGS AND LOAN ASSNS; SHARE DRAFT ACCOUNTS; TELEPHONES

PERSONAL NAMES: MILLETTI, MARIO A

17/5/25 (Item 3 from file: 474)

DIALOG(R) File 474: New York Times Abs

(c) 2003 The New York Times. All rts. reserv.

00782139 NYT Sequence Number: 052917770219

NYSE and Amex under great pressure to demonstrate to SEC and securities industry that exchanges should be retained as integral part of natl market system. Computerized electronic central market system would do away with present system of exchanges. Specialists stand to lose most from central system, since specialists' income comes from matching buy and sell orders and buying and selling for own accounts. Recent

Securities Industry Assn study shows stock exchange industry in NYC employs 70,000 and contributes about \$500 million annually in direct taxes. NYSE, Amex, 3rd market firms and 4 smaller exchanges have set up Natl Market Assn to develop system to link exchanges electronically and demonstrate that existing exchanges should be core around which natl market system is built (M).)

SALPUKAS, AGIS

New York Times, Col. 2, Pg. 29

Saturday February 19 1977

DOCUMENT TYPE: Newspaper JOURNAL CODE: NYT LANGUAGE: English

RECORD TYPE: Abstract

COMPANY NAMES: MARKET ASSN, NATIONAL; SECURITIES INDUSTRY ASSN; SECURITIES AND EXCHANGE COMMISSION (S; E; C;); STOCK EXCHANGE, NY (NYSE); STOCK EXCHANGE, AMERICAN (ASE)

DESCRIPTORS: CENTRAL MARKET SYSTEM (STOCKS); DATA PROCESSING PROGRAMMING AND SYSTEMS; LABOR; STATISTICS; STOCKS AND BONDS (GENERAL); TAXATION PERSONAL NAMES: SALPUKAS, AGIS

GEOGRAPHIC NAMES: NEW YORK CITY

17/5/26 (Item 4 from file: 474)

DIALOG(R) File 474: New York Times Abs

(c) 2003 The New York Times. All rts. reserv.

00462064 NYT Sequence Number: 029094740516

Negotiated fees offered by NYSE member firms on small stock transactions discussed. Customers of some firms are paying more now than before. Discounts available in plans offered at Paine Webber Jackson & Curtis, Merrill Lynch and Bache & Co revd (M).)

METZ, ROBERT

New York Times, Col. 2, Pg. 60

Thursday May 16 1974

DOCUMENT TYPE: Newspaper JOURNAL CODE: NYT LANGUAGE: English

RECORD TYPE: Abstract

COMPANY NAMES: BACHE & CO INC; MERRILL LYNCH PIERCE FENNER & SMITH INC;

PAINE WEBBER JACKSON & CURTIS INC

DESCRIPTORS: COMMISSIONS (FEES); STOCKS AND BONDS

PERSONAL NAMES: METZ, ROBERT

17/5/27 (Item 1 from file: 475)

DIALOG(R) File 475: Wall Street Journal Abs (c) 2003 The New York Times. All rts. reserv.

06251351

MORTGAGE-BACKED CONTRACTS ARE TEMPORARILY SUSPENDED

Wall Street Journal, Col. 5, Pg. 16, Sec. C

Wednesday January 15 1992

DOCUMENT TYPE: Newspaper JOURNAL CODE: WSJ LANGUAGE: English

RECORD TYPE: Abstract

ABSTRACT:

Chicago Board of Trade temporarily suspends trading of new contract months for its little-used mortgage-backed futures and options contracts; says it is considering listing them on its 'Project A' electronic order - matching system, which is now being developed (S)

COMPANY NAMES: CHICAGO BOARD OF TRADE

DESCRIPTORS: STOCKS AND BONDS; FUTURES TRADING; OPTIONS TRADING

17/5/28 (Item 2 from file: 475)

DIALOG(R) File 475: Wall Street Journal Abs (c) 2003 The New York Times. All rts. reserv.

05532922

QVC BID TO ACQUIRE CVN FOR \$400 MILLION IS DISCUSSED BY FIRMS

Wall Street Journal, Col. 6, Pg. 6, Sec. 2

Wednesday June 28 1989

DOCUMENT TYPE: Newspaper JOURNAL CODE: WSJ LANGUAGE: English

RECORD TYPE: Abstract

ABSTRACT:

QVC Network Inc and CVN Cos, home-shopping retailers, are negotiating QVC's offer to buy all of CVN's common stock in deal valued at over \$400 million (S)

COMPANY NAMES: QVC **NETWORK** INC; CVN COMPANIES INC DESCRIPTORS: MERGERS, ACQUISITIONS AND DIVESTITURES

17/5/29 (Item 1 from file: 583)

DIALOG(R) File 583: Gale Group Globalbase (TM) (c) 2002 The Gale Group. All rts. reserv.

09275021

Bolsa operara con sistema electronico

EL SALVADOR: NEW **ONLINE STOCK TRADING** SYSTEM La Prensa (El Salvador) (AWR) 24 Apr 2000 Online Language: SPANISH

By the summer of 2000, the Salvadoran Stock Market, through an agreement with the Spanish Stock Market, will begin using the SIBE system (sistema de informacion bursatil) for online stock trade. With the online trading system, users can trade anonymously while the system matches their offers and their bids exactly. It is expected that the system will encourage integrity in trading, by providing more accuracy and precision. The SIBE system, already adopted by the Spanish Stock exchange, is currently being used in several other countries. *

EVENT: General Management Services (26); Capital Expenditure (43); Use of Materials & Supplies (46); Contracts & Orders (61); COUNTRY: Spain (4SPA); El Salvador (3ELS);

17/5/30 (Item 2 from file: 583)

DIALOG(R) File 583: Gale Group Globalbase(TM) (c) 2002 The Gale Group. All rts. reserv.

09051200

SFC to offer security guidance ahead of regulatory bill HONG KONG: INTERNET STOCK TRADING TO GET POPULAR South China Morning Post (XKT) 28 Jan 1999 p.b3

Language: ENGLISH

Internet stock trading will get more popular after the Stock Exchange upgrades its system to Automated Order Matching and Execution System in mid-2000. The system will allow 500 stock brokers to offer Internet

trading , up from current 3. The Securities and Futures Commission also
plans to issue guidelines for brokers on Internet stock trading. The
guidelines stresses the importance of information security and reliable
computer system for Internet stock trading. The SFC will also include
the regulation of Internet stock trading in the proposed Composite
Securities and Futures Bill which will be released in 1999. *

COMPANY: SECURITIES & FUTURES COMMISSION

PRODUCT: Securities & Commodities Exchanges (6230); Securities Dealers (6211); Debt & Equity Securities (E5640); Computers & Auxiliary Equip (3573); Communications Eqp ex Tel (3662);

EVENT: General Management Services (26); Government Regulations (93);

COUNTRY: Hong Kong (9HON);

17/5/31 (Item 3 from file: 583)

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09029546

Markets may stay open for 24 hours

HONG KONG: EXCHANGES CONSIDER 24-HOUR TRADING South China Morning Post (XKT) 08 Dec 1998 p.b3

Language: ENGLISH

The Hong Kong government will study the proposal of extending stock and futures markets to 24-hour trading. The stock exchange will look into real stock and cash settlement while the futures exchange will implement electronic trading in 1999. These two projects will help to launch the 24-hour trading in order to match competition in global financial markets. *

PRODUCT: Securities & Commodities Exchanges (6230); Securities Dealers (

6211); Debt & Equity Securities (E5640);

EVENT: Government Domestic Functions (97);

COUNTRY: Hong Kong (9HON);

17/5/32 (Item 4 from file: 583)

DIALOG(R) File 583: Gale Group Globalbase (TM) (c) 2002 The Gale Group. All rts. reserv.

09008219

Posit given permission to start trading in November

UK: POSIT TO DEBUT AT START OF NOVEMBER Financial Times (FT) 28 Oct 1998 p.38

Language: ENGLISH

Having received regulatory approval from the London Stock Exchange (LSE) Posit, a Dublin-based trading system which was devised by US-based ITG group, is to start trading on the London Stock Exchange with effect from 02 November 1998. It will compete with Sets, the LSE's own electronic trading system. Posit already boasts a daily trading volume of 22mm shares in the US and will use London as a springboard form which to expand in Europe. It offers two matching sessions and claims to be cheaper than current dealing systems.

(c) Financial Times 1998

COMPANY: SETS; ITG; POSIT

PRODUCT: Securities & Commodities Exchanges (6230); Securities Dealers (6211); Debt & Equity Securities (E5640);

EVENT: Product Design & Development (33); Company Formation (12);

Company Formation (14);

COUNTRY: United Kingdom (4UK); United States (1USA);

17/5/33 (Item 5 from file: 583)

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06278612

Move to order-driven trading postponed .

UK: SE TO DELAY ORDER-DRIVEN MARKET SYSTEM
Daily Telegraph (DT) 07 Mar 1996 p.20
Language: ENGLISH

Following analysis showing that some 50% of equities **trading** members of the UK **Stock** Exchange (SE) are opposed to the planned introduction of an **order** -driven automatic **order matching** system during the last three months of 1996, the SE is to delay its implementation. Many members are calling for more information on the planned move. The SE was hoping to launch the system shortly after the August 27 1996 date when its Sequence 6 **electronic** trading system comes **on line**.

COMPANY: STOCK EXCHANGE

PRODUCT: Securities & Commodities Exchanges (6230); Securities Dealers (

6211); Debt & Equity Securities (E5640); EVENT: General Management Services (26);

COUNTRY: United Kingdom (4UK);

17/5/34 (Item 6 from file: 583)

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06208805

SES launches order matching system for bond trading SINGAPORE: ORDER MATCHING SYSTEM FOR BOND

Business Times (XBA) 03 October 1995 P.1

Language: ENGLISH

As part of its plan to activate the sluggish Singapore bond market, a Bonds Quotation. System (BQS) based on Central Limit Order Book (Clob) trading system has been launched by the Stock Exchange of Singapore. According to this system, the minimum size of issue is at US\$ 100 mn while the minimum size of trading is at US\$ 1 mn. The **securities** to be **traded** are to be issued by means of Asian sovereign and financial institution denominated in B7 currencies.

COMPANY: STOCK EXCHANGE OF SINGAPORE

PRODUCT: Electronic Financial Services Sys (3573EF); Financial Services

Software (7372FI);

EVENT: Product Design & Development (33);

COUNTRY: Singapore (9SIN);

17/5/35 (Item 7 from file: 583)

DIALOG(R) File 583: Gale Group Globalbase (TM) (c) 2002 The Gale Group. All rts. reserv.

06161945

Stock Exchange faces electronic competitor

UK: SIB APPROVES TRADEPOINT SYSTEM Guardian (GN) 08 Jun 1995 p.18 Language: ENGLISH

The UK Securities & Investments Board has approved the start-up of Tradepoint, an electronic rival to the London Stock Exchange which will anonymously match buy and sell orders for clients. Break-even for the system, planned to start up in August 1995, is possible with only a small percentage of total trades. Professional market makers are not expected to move to the new system in volume and it is fund managers who are expected to make up the bulk of users.

COMPANY: LONDON STOCK EXCHANGE; TRADEPOINT; SECURITIES & INVESTMENTS BOARD

PRODUCT: Securities & Commodities Exchanges (6230); Securities Dealers (6211); Debt & Equity Securities (E5640);

EVENT: Company Formation (12); Company Formation (14); Marketing

Procedures (24);

COUNTRY: United Kingdom (4UK);

17/5/36 (Item 8 from file: 583)

DIALOG(R)File 583:Gale Group Globalbase(TM) (c) 2002 The Gale Group. All rts. reserv.

05976418

Stock Exchange approves order matching UK: AUTOMATIC MATCH ON THE STOCK EXCHANGE Financial Times (FT) 22 Apr 1994 p.8 Language: ENGLISH

In response to increasing competition and the threat of a new small companies exchange the London Stock Exchange has approved the funding to build the software for a new system called Seaquence, that automatically matches shares that are being offered for sale and requested for sale at the same price. Such a system has been used with success by Nasdaq, the US based electronic exchange. Market makers on the exchange are not happy with the news.

COMPANY: NASDAQ; STOCK EXCHANGE

PRODUCT: Securities & Commodities Exchanges (6230); Securities Dealers (6211); Debt & Equity Securities (E5640);

EVENT: General Management Services (26); Manufacturing Processes (32);

COUNTRY: United Kingdom (4UK);

17/5/37 (Item 9 from file: 583)

DIALOG(R) File 583: Gale Group Globalbase(TM) (c) 2002 The Gale Group. All rts. reserv.

05856092

InterCity in new West-coast train talks

UK: BR/GEC ALSTHOM NEGOTIATE ROLLING STOCK

Scotsman (SN) 12 May 1993 p.4

Language: ENGLISH

British Rail (BR) and GEC Alsthom are holding talks over an order for rolling stock which would be used by InterCity on the London to Glasgow line, according to Chris Green, managing director of InterCity. InterCity is hoping to place an order for 14 225 trains, but is competing with fellow BR division, Network SouthEast, which requires trains for its commuter service in Kent. British Rail has been given GBP 150mm for the lease of new trains by the government, which will decide which division is given the money for new rolling stock.

NETWORK SOUTHEAST; INTERCITY; GEC ALSTHOM; BRITISH RAIL COMPANY:

PRODUCT: Railway Equipment (3740);

Capital Expenditure (43); Use of Materials & Supplies (46); EVENT:

Contracts & Orders (61); COUNTRY: United Kingdom (4UK);

(Item 10 from file: 583) 17/5/38

DIALOG(R)File 583:Gale Group Globalbase(TM) (c) 2002 The Gale Group. All rts. reserv.

05192073

Digital contracts

WORLD - DEC WINS CONTRACTS

Financial Technology Insight (FTI) 0 June 1992 p3-4

Nomura Bank (Switzerland) has awarded a USD1r2.8 mil contract to DEC covering the supply of an integrated trading and information system based on DECtrade. The system, details of which are included in the article, will be installed at the bank's dealing floors in Geneva, Basel, Zurich and Lugano, Switzerland. Meanwhile, the Stock Exchange of Hong Kong has placed a USDlr2.6 mil order with DEC for over 1,600 DEC PCs. The PCs will be and used as platforms for the **Stock** Exchange's Automatic **Matching** & Execution System (AMS). **Bids** will automatically be networked by the PCs and the resulting transactions will Order with offers subsequently be processed by the Stock Exchange's mainframe computer. Finally, Hoare Govett (London, UK), stockbroker, has awarded a financial systems facilities management contract to DEC.

COMPANY: DIGITAL EQUIPMENT; NOMURA BANK; STOCK EXCHANGE OF HONG KONG;

PRODUCT: Financial Services Software (7372FI); Computer Software (COSW);

Data Processing in Finance Sector (7374FI); Computer Services (COSV); IT: CONTRACTS WON (61);

COUNTRY: Switzerland (5SWI); Hong Kong (9HON); United Kingdom (4UK);

European Free Trade Association Countries (511); Pacific Rim (914);

Northern Europe (414); European Economic Community Countries (419);

NATO Countries (420);

(Item 11 from file: 583) 17/5/39

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05150114

Stratus hardware to support TCAM securities system

UK - STRATUS AND TCAM MARKET CTPS
Dealing Technology Bulletin (DTB) 0 May 1992 p8,9

Stratus and TCAM are jointly marketing the Continuous Transaction Processing System (CTPS), developed by the latter, to worldwide institution and retail securities companies. The CTPS is targetted at the former's range of fault tolerant XA2000 systems. The securities order matching software is aimed at front office automation at Agency Brokers, from order capture to clearing and settlement. The system has been proved to reduce error rates and boost capacity, and thus make cost savings. Unexpected changes in trading volumes can be handled and the system can be upgraded easily online.

COMPANY: STRATUS; TCAM

PRODUCT: Financial Services Software (7372FI); CAD/CAM Mechanical Software (COSW); Data Processing in Finance Sector (7374FI); Computer Services (COSV):

EVENT: NEW PRODUCT EXTENSION (33);

COUNTRY: United Kingdom (4UK); OECD Europe (415); European Economic Community Countries (419); NATO Countries (420); South East Asia Treaty Organisation (913);

17/5/40 (Item 12 from file: 583)
DIALOG(R)File 583:Gale Group Globalbase(TM)
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04830489

Hot line to Germany
UK - HYPO-BANK LINKS WITH FRANKFURT STOCK EXCHANGE
The Banker (TB) 0 January 1992 p6
ISSN: 0005-5395

Hypo-Bank has become the first dealer in the UK to link up directly to buy shares in Germany, and now has direct access to the IBIS screen-based quotation and trading system at the stock exchange in Frankfurt, Germany. The IBIS system is likely to be used for 70% of trades, with SEAQ International being used for the remaining 30%. IBIS gives order matching facilities for dealing in German equities, and bypasses the floor of the stock exchange in Frnakfurt. Dealers can key orders directly into the system, and are offered automatic trade matching. Article looks at initial volumes handled on the system and at the prospects for its extended use.

COMPANY: HYPO-BANK

PRODUCT: Mortgage Bankers & Brokers (6160); Data Processing in Finance Sector (7374FI); Computer Services (COSV); Electronic Banking Services (6005); Financial Services Software (7372FI); CAD/CAM Mechanical Software (COSW);
EVENT: NEW SERVICE LAUNCH (36);
COUNTRY: United Kingdom (AUK): OFCD Europe (415): NATO Countries (420);

COUNTRY: United Kingdom (4UK); OECD Europe (415); NATO Countries (420); South East Asia Treaty Organisation (913);

17/5/41 (Item 13 from file: 583)
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04218780
FRANKFURT BOURSE PLANS NEW SYSTEMS
GERMANY - FRANKFURT BOURSE PLANS NEW SYSTEMS
Banking Technology (BTY) 0 April 1991 p24-25
ISSN: 0266-0865

Germany: Plans by Frankfurt bourse to install new electronic systems in 1991, backed by banks seeking to channel trading through Frankfurt to cut costs, are opposed by the smaller stock exchanges, of which three are likely to close as a result. Frankfurt already accounts for some 67% of turnover for national securities trading , and Commerzbank, Deutsche Bank and Dresdner Bank plan to channel blue chips trading to Frankfurt. This diversion is possible due to Boursen-Order-Service-System (Boss) the new order routing system for Frankfurt to be launched in autumn 1991, allowing banks to channel orders direct to the Frankfurt floor and providing official brokers with quote matching facilities, and offering all participants in the market with virtually immediate options for clearing and settlement. Boss is designed to take floor business from bourses elsewhere. However, Inter-Banken-Informations-System (Ibis), to be incorporated into the exchange at Frankfurt, and Frankfurt's development into a stock exchange that is fully computerised, represent a defensive move against Midas, a rival stockbroking system. Ibis should be ready by the end of April 1991, and trading is to be limited to those 30 shares in Germany's DAX index, and to 20 bonds.

PRODUCT: **Electronic** Financial Services Sys (3573EF); Securities & Commodities Services (6200);

EVENT: LAND USE/PURCHASE/SALES (41);

COUNTRY: Germany (4GER); OECD Europe (415); European Economic Community

Countries (419); NATO Countries (420);

17/5/42 (Item 14 from file: 583)

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04184237

BUILD UP OF NORDEX AUTOMATED EXCHANGE CONTINUES

UK - BUILD UP OF NORDEX AUTOMATED EXCHANGE CONTINUES

Financial Technology International Bulletin (FTIB) 0 March 1991 p4-5

Nordex, the automated exchange for Scandinavian equities operated by Transvik (New York, NY), a subsidiary of Kinnevik (Sweden), an information and communications group, is now open for trading until 4pm UK time and its build-up is continuing. From the beginning of March 1991, Derivatan O'Connors, United Securities, Invik in London, UK, and Arbitech in Stockholm, Sweden, all brokers, have been ready to make a market in Volvo, Electrolux, Astra and Ericsson, some of the most popular stocks traded over Nordex. Moorgate Options and Invik have agreed to make a market in Norsk Hydro and Bergesen. Best bid and offer prices for Nordex-listed equities can now be seen by non Nordex- users since they are being shown on Reuters pages TVKA and TVKB. The Nordex screen-based automated trading system aims to match bid and offer orders based on price and time, and confirms trades to the market and the counterparties simultaneously. Dealing began in 1991 and the average transaction by the beginning of March 1991 was for 3k shares. Article includes details of the Nordex system.

PRODUCT: Electronic Financial Services Sys (3573EF); Electronic Banking Services (6005);

EVENT: LAND USE/PURCHASE/SALES (41);

COUNTRY: United Kingdom (4UK); Scandinavia (5SC); OECD Europe (415); NATO

Countries (420); South East Asia Treaty Organisation (913);

17/5/43 (Item 15 from file: 583)

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04120288

NATWEST STOCKBROKERS INSTALLS ORDER MATCHING SYSTEM

UK - NATWEST STOCKBROKERS INSTALLS ORDER MATCHING SYSTEM

Financial Technology Bulletin (FTB) 0 February 1991 p9

NatWest Stockbrokers is now running a version of CTPS, the order matching system developed by TCAM Systems, on a Stratus XA2000 processor. Designed to automate the clerical tasks involved in order entry and execution report matching, CTPS routes copies of orders collected electronically from branch or client offices, to an electronic stock exchange or trading floor for execution. The system provides an alternative to running an order matching system on a mainframe or using a bureau.

PRODUCT: **Electronic** Financial Services Sys (3573EF); Securities Dealers (6211);

EVENT: LAND USE/PURCHASE/SALES (41);

COUNTRY: United Kingdom (4UK); OECD Europe (415); NATO Countries (420);

South East Asia Treaty Organisation (913);

17/5/44 (Item 16 from file: 583)

DIALOG(R) File 583: Gale Group Globalbase(TM) (c) 2002 The Gale Group. All rts. reserv.

04036387

NORDEX CROSS-BORDER TRADING SYSTEM NOW **ONLINE**UK - NORDEX CROSS-BORDER TRADING SYSTEM NOW **ONLINE**Financial Technology Bulletin (FTB) 0 January 1991 p9

Transvik, a subsidiary of the information and communications group, Invik/Kinnevik (Sweden), expects the Nordex automated cross-border trading system which it operates to have 20 users in the early weeks of 1991. Nordex, an integrated, screen-based trading system which anonymously orders based on price and time, is now offer matches bid and to handle deals in such widely- traded Scandinavian stocks as online ASEA, Ericsson, Electrolux, Saga Petroleum and Volvo. Dealing has now started and Nordex currently has 16 subscribers from securities firms in the UK, US, Sweden, Norway, the Netherlands and Luxembourg. Transvik claims that the Nordex system can virtually eliminate mismatched trades, increase trading productivity and reduce risk. The Digital Equipment Vax 3100 workstations with a mouse-driven icon interface required to use the Nordex system are provided by Transvik.

PRODUCT: Financial Service Information Prods (7375FN); Computer Services (COSV);

EVENT: PRODUCTS, PROCESSES & SERVICES (30);

COUNTRY: United Kingdom (4UK); OECD Europe (415); NATO Countries (420); South East Asia Treaty Organisation (913);

17/5/45 (Item 17 from file: 583) DIALOG(R)File 583:Gale Group Globalbase(TM)

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STRATUS COMPUTER OFFERS SECURITIES MATCHING SOFTWARE US - STRATUS COMPUTER OFFERS SECURITIES MATCHING SOFTWARE 14 January 1991 pl Computergram International (CGI) ISSN: 0268-716X

Stratus Computer is offering New York-based TCAM Systems' securities matching software on its XA2000 Continuous Processing Systems with Stratus' VOS operating system: the software, CTPS, is claimed to enable securities brokers to process orders with more speed and flexibility and at lower costs than third-party service bureaux or mainframe-based order operations; Stratus XA2000 systems go from the entry-level Model 30, from USDlr37k to the mainframe-class Model 2860 from USDlr9 mil; CTPS prices vary.*

Electronic Financial Services Sys (3573EF); Financial Software PRODUCT: (7372FS); CAD/CAM Mechanical Software (COSW);

PRODUCTS, PROCESSES & SERVICES (30);

COUNTRY: United States (1USA); NATO Countries (420); South East Asia

Treaty Organisation (913);

(Item 18 from file: 583) 17/5/46 DIALOG(R) File 583: Gale Group Globalbase (TM) (c) 2002 The Gale Group. All rts. reserv.

03806470 LUXEMBOURG STOCK EXCHANGE OPTS FOR ICCH SYSTEM LUXEMBOURG STOCK EXCHANGE OPTS FOR ICCH SYSTEM 0 October 1990 p7 Online Finance (OLF)

The Luxembourg Stock Exchange will implement ICCH Financial Market's ATS/2 system to automate securities trading in first quarter 1991. Currently several exchanges employ the ATS/2 system for options and futures trading. The Luxembourg SE will use the system to improve the existing open outcry method of trading by speeding up processing, cutting handling costs and eliminating manual procedures. The system features remote and trading ring entry of orders and price quotations, electronic links between traders and base offices, market making facilities, trade negotiation and order matching , price and trade confirmation and reporting. The Luxembourg Stock Exchange has approximately 10k international securities mainly variable or fixed interest bonds.

PRODUCT: Securities & Commodities Services (6200);

PLANT/FACILITIES/EQUIPMENT (44);

COUNTRY: Luxembourg (4LUX); OECD Europe (415); European Economic Community

Countries (419); NATO Countries (420);

(Item 19 from file: 583) 17/5/47 DIALOG(R) File 583: Gale Group Globalbase (TM) (c) 2002 The Gale Group. All rts. reserv.

02856518 NORDEX TO BE FIRST COMPUTERISED EXCHANGE UK - NORDEX TO BE FIRST COMPUTERISED EXCHANGE 0 August 1989 p5-6 Online Finance (OLF)

Transvik Market Systems will bring Nordex online in London, UK, during August 1989. Facilities offered by Nordex, which will compete with the larger, but delayed, Globex, include trading, dealing, matching and bids all via computer screens. London handled more than 187 mil Nordic shares in 1988, and Nordex will trade in unrestricted securities from Norway, Finland, Sweden and Denmark. This, following introduction of a Swedish sales tax on shares and deregulation in July 1989, could hasten decline of Scandinavian exchanges. Nordex centres on DEC Vax equipment, and technology could be available later to enable competition on a wider front. Nordex has a monthly charge of GBP1k-GBP1,500, plus a 0.1% fee on shares traded.

PRODUCT: Securities & Commodities Services (6200); Financial Service Information Prods (7375FN); Computer Services (COSV); PRODUCTS, PROCESSES & SERVICES (30); COUNTRY: United Kingdom (4UK); OECD Europe (415); NATO Countries (420);

South East Asia Treaty Organisation (913);

(Item 20 from file: 583) 17/5/48 DIALOG(R)File 583:Gale Group Globalbase(TM) (c) 2002 The Gale Group. All rts. reserv.

02496118 STOCK EXCHANGE TO LAUNCH AUTOMATED TRADING SYSTEM SWEDEN - STOCK EXCHANGE TO LAUNCH AUTOMATED TRADING SYSTEM 17 February 1989 p31 Financial Times (C) 1991 (FT)

The Stockholm Bourse will launch an automated trading system from 2 June 1989 in place of its call-over and after-market trading. There will be a sorted and matched in the computer gradual changeover, with orders system. However, brokers will be able to trade outside the system with large deals involving more than 50k shares. The system will be used initially for equity trading, but it may also be extended to trading in , convertibles and other instruments. The system will be known as SAX, or Stockholm Automated Exchange. It is hoped that the system will reinforce the competitiveness of the capital market in Sweden, bringing lower transaction costs and an improvement in liquidity. Copyright: Financial Times Ltd 1991

Electronic Financial Services Sys (3573EF); Securities & Commodities Services (6200); Financial Service Information Prods (7375FN); Computer Services (COSV);

PLANT/FACILITIES/EQUIPMENT (44);

COUNTRY: Sweden (5SWE); OECD Europe (415); European Free Trade Association Countries (511); Scandinavian Countries (512);

(Item 21 from file: 583) DIALOG(R) File 583: Gale Group Globalbase (TM) (c) 2002 The Gale Group. All rts. reserv.

00200444 COMPUTERS DO NOT INCREASE RISKS OF THE STOCK MARKET CANADA - COMPUTERS DO NOT INCREASE RISKS OF THE STOCK MARKET 2 April 1986 pB4 Canadian Globe & Mail (CGM)

William Sharpe, Prof of Finance at Stanford University, spoke at a conference in Toronto on the use of microcomputers in investment. He said that studies by academics have not shown that complex buying and selling programmes making prices of shares fluctuate massively increases the risk of placing money on the stock market. Due to the fact that many US investment firms use computers to **buy** and **sell stocks** and shares, **stock** markets often experience large swings as **orders** are **matched**. The software usually costs between \$2.5k and \$15k.

PRODUCT: Electronic Financial Services Sys (3573EF); Financial Software

(7372FS); CAD/CAM Mechanical Software (COSW);

EVENT: MARKET & INDUSTRY NEWS (60);

COUNTRY: Canada (2CAN); NATO Countries (420);

17/5/50 (Item 1 from file: 256)

DIALOG(R) File 256:SoftBase:Reviews, Companies&Prods.

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00123232 DOCUMENT TYPE: Review

PRODUCT NAMES: Stock Market (830238)

TITLE: Wall Street Wired: Electronic Networks Could Reduce the Cost...

AUTHOR: Osterland, Andrew

SOURCE: CFO, v16 n2 p34(7) Feb 2000

ISSN: 8756-7113

HOMEPAGE: http://www.cfonet.com

RECORD TYPE: Review

REVIEW TYPE: Product Analysis
GRADE: Product Analysis, No Rating

Experts predict that recent moves toward electronic communications networks (ECNs) and other factors could cause trading in secondary markets to change more in the next five years than it has in the past 200. Shifts in the U.S. capital markets, while vexing to Wall Street, have proven beneficial to companies that offer alternatives to costly underwriters. ECNs are order matching systems that allow buyers to view bids and offers via a computer network . Because they offer anonymity, lower costs, and faster trades, electronic networks are bringing down prices and may be the future of securities markets. ECNs also help enforce order handling rules set up by the SEC to provide competition in exchanges by forcing NASDAQ dealers to show customer limit orders. Posting prices and sizes of customer orders makes supply and demand trends in the market more apparent. ECNs are also forcing exchanges including the NYSE to implement the Congress-commissioned Intermarket Trading System (ITS), which is intended to connect markets, making all bids for stock executable with offers to sell , regardless of bidding location. While this is a move towards competition that some exchanges do not want, electronic networks are helping to enforce standing laws and policies. More proposed competition-bolstering rules and further developments in the technology will open the doors for electronic communications networks to revolutionize U.S. securities market.

COMPANY NAME: Vendor Independent (999999)

DESCRIPTORS: New Economy; Online Stock Trading'; Securities; Stock

Market

REVISION DATE: 20011130

17/5/51 (Item 2 from file: 256)

DIALOG(R) File 256: SoftBase: Reviews, Companies&Prods.

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00116283 DOCUMENT TYPE: Review

PRODUCT NAMES: Online Stock Trading (837407

TITLE: Online Brokers Look to Extend Hours

AUTHOR: Murphy, Kathleen

SOURCE: Internet World, v5 n15 p38(1) Apr 19, 1999

ISSN: 1097-8291

HOMEPAGE: http://www.iw.com

RECORD TYPE: Review

REVIEW TYPE: Product Analysis GRADE: Product Analysis, No Rating

Eclipse Trading's IndivEX, a market infrastructure for off-hours retail trading, is used by Madoff Securities and Discover Brokerage to execute investment transactions after the close of the securities markets. Eclipse will first provide IndivEX as an evening session by subscription beginning at 6 P.M. Eastern Time for a few hours, but some analysts predict that 24-hour online investing will soon follow. Other networks will eventually compete with IndivEX, including those under development by Wit Capital and Datek. Each network will attempt to match buy and sell orders of users at any time, and will have to gain as many subscribers as possible to ensure a large enough order flow. Therefore, inking agreements with the leading online brokerages will be key to success, and could mean that only one off-hours network will survive. Another consideration is the effect of regulation, including that potentially imposed by the New York attorney general resulting from an inquiry into the online trading industry. However, robust consumer support could strengthen online brokerages' support for after-hours trading. For example, about 40 percent of Discovery's orders are taken after the close of markets.

COMPANY NAME: Vendor Independent (999999)

SPECIAL FEATURE: Charts

DESCRIPTORS: E-Commerce; Internet Utilities; Online Stock Trading;

Order Fulfillment; Stock Brokers; Stock Market

REVISION DATE: 20020630

17/5/52 (Item 3 from file: 256)

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.

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00114135 DOCUMENT TYPE: Review

PRODUCT NAMES: OptiMark (739138)

TITLE: Optimark Finalizes Deal to Become Order Matching Facility of

Nasdaq

AUTHOR: Sales, Robert

SOURCE: Wall Street & Technology, v16 nll p43(1) Nov 1998

ISSN: 1060-989X

HOMEPAGE: http://www.wallstreetandtech.com

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

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Items
                 Description
Set
                 SECURITIES OR BOND? ? OR FUNGIBLE() PROPERT? OR MUTUAL() FUN-
       228636
S1
              D? ? OR STOCK? ?
                 SALE? OR TRANSACT? OR ORDER? OR TRADING OR TRADE? OR PURCH-
S2
       869187
              AS? OR BUY??? OR SELL???
                MERCHANT? OR AGENT? OR TRADER? OR SELLER? OR PARTIES OR PA-
       514307
S3
              RTY OR DEALER? OR RETAILER? OR VENDOR? ? OR BROKER? ?
                CLIENT? OR USER? OR BUYER? OR CLIENT? OR CUSTOMER? OR CONS-
      299969
S4
              UMER? OR SUBSCRIBER? OR PURCHASER?
                 MATCH? OR NEGOTIAT?
       194232
S5
          5690
                 S1(3N)S2
S6
                 S5(3N)(ORDER? ? OR BID OR BIDS OR OFFER? OR AUCTION?)
          6485
S7
            71
                 S6(15N)S7
S8
                 S6 (5N) ANONYMOUS?
S9
            17
            46
                 (S8 OR S9) (10N) (S3 OR S4)
S10
S1D S10 AND IC=G06F-017/60-
show files
File 348:EUROPEAN PATENTS 1978-2003/Mar W05
(SID)
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File 349:PCT FULLTEXT 1979-2002/UB=20030403,UT=20030327
          (c) 2003 WIPO/Univentio
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11/3, K/1
             (Item 1 from file: 348)
DIALOG(R) File 348: EUROPEAN PATENTS
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01307792
Three stage matching system for crossing network
Dreistufiges Ubereinstimmungssystem für ein Netzwerk zum Zusammenbringen
    von Kaufern und Verkaufern
Systeme d'appariement en trois temps pour reseau d'echange
PATENT ASSIGNEE:
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    Theobald's Road, London WC1X 8RW, (GB)
PATENT (CC, No, Kind, Date): EP 1118953 A2 010725 (Basic)
APPLICATION (CC, No, Date): EP 2001200200 010119;
PRIORITY (CC, No, Date): US 489769 000121
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
  LU; MC; NL; PT; SE; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: G06F-017/60
ABSTRACT WORD COUNT: 194
NOTE:
  Figure number on first page: 1
```

LANGUAGE (Publication, Procedural, Application): English; English; FULLTEXT AVAILABILITY:

Available Text Language Update Word Count
CLAIMS A (English) 200130 1619
SPEC A (English) 200130 21765
Total word count - document A 23384
Total word count - document B 0
Total word count - documents A + B 23384

INTERNATIONAL PATENT CLASS: G06F-017/60

...ABSTRACT A2

A system for anonymous trading of securities and continuously matching buyers with sellers maintains a database (4) of buyer and seller profiles (6, 8). Each profile is a matrix of values defining the satisfaction density value...

...SPECIFICATION Pat. No. 4,412,287 which discloses an automated stock exchange in which a computer matches buy and sell orders for a variety of stocks; U.S. Pat. 3,573,747, which discloses an anonymous trading system for selling fungible properties between subscribers to the system; U.S. Pat. 3,581,072, which discloses the use of a...

```
DIALOG(R) File 348: EUROPEAN PATENTS
(c) 2003 European Patent Office. All rts. reserv.
01251341
Dynamic order visibility system for the trading of assets
Dynamisches System zum Sichtbarmachen von Nachfragen fur den Handel mit
    Vermogenswerten
Syteme dynamique pour rendre visible les commandes dans le commerce des
    actifs
PATENT ASSIGNEE:
  Intelligent Markets, Inc., (3101960), 410 Jessie Street, Suite 602, San
    Francisco, CA 94103, (US), (Applicant designated States: all)
INVENTOR:
  Huttenlocher, Carl, 1563 Dolores Street, San Francisco CA 94110, (US)
  Topaz, Jason Andrew, 409 Dolores Street# 2, San Francisco CA 94110, (US)
LEGAL REPRESENTATIVE:
  UEXKULL & STOLBERG (100011), Patentanwalte Beselerstrasse 4, 22607
    Hamburg, (DE)
PATENT (CC, No, Kind, Date): EP 1081614 A2 010307 (Basic)
                              EP 1081614 A3 011205
APPLICATION (CC, No, Date):
                              EP 2000118171 000830;
PRIORITY (CC, No, Date): US 386436 990831
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
  LU; MC; NL; PT; SE
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: G06F-017/60
ABSTRACT WORD COUNT: 168
  Figure number on first page: 1
LANGUAGE (Publication, Procedural, Application): English; English; English
FULLTEXT AVAILABILITY:
Available Text Language
                           Update
                                     Word Count
      CLAIMS A (English)
                           200110
                                      3250
                (English)
                          200110
                                     14219
      SPEC A
Total word count - document A
                                     17469
Total word count - document B
Total word count - documents A + B
                                     17469
INTERNATIONAL PATENT CLASS: G06F-017/60
....SPECIFICATION Some examples of these systems are shown in USPN
  3,573,747, which discloses an anonymous trading system for selling
           properties between subscribers to the system; USPN
  4,412,287, which discloses an automated stock exchange in which...
```

11/3,K/3 (Item 3 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

(c) 2003 European Patent Office. All rts. reserv.

(Item 2 from file: 348)

00430602

11/3, K/2

Distributed system and method for matching of buyers and sellers.

Verteiltes System und Verfahren zum Herstellen von Geschaftsbeziehungen zwischen Kaufern und Verkaufern.

Systeme distribue et methode pour etablir une correspondance entre acheteurs et vendeurs.

```
PATENT ASSIGNEE:
```

REUTERS LIMITED, (1237190), 85 Fleet Street, London WC4P 4HA, (GB), (applicant designated states: CH; DE; FR; GB; LI)

INVENTOR:

Silverman, David L., 51 Dover Hill Drive, Nesconset, New York 11767, (US) Keller, Norman, 119 Chesnut Street, Mt. Sinai, New York 11766, (US) Scholldorf, Alfred H., 354 Broadway, Port Jefferson Station, New York 11776, (US)

LEGAL REPRESENTATIVE:

Waldren, Robin Michael et al (55602), MARKS & CLERK, 57-60 Lincoln's Inn Fields, London WC2A 3LS, (GB)

PATENT (CC, No, Kind, Date): EP 407026 A2 910109 (Basic)

EP 407026 A3 911016

EP 407026 B1 951122

APPLICATION (CC, No, Date): EP 90305753 900525;

PRIORITY (CC, No, Date): US 357036 890525; US 357484 890525

DESIGNATED STATES: CH; DE; FR; GB; LI INTERNATIONAL PATENT CLASS: G06F-017/60

ABSTRACT WORD COUNT: 419

LANGUAGE (Publication, Procedural, Application): English; English; FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	945
CLAIMS B	(English)	EPAB95	811
CLAIMS B	(German)	EPAB95	684
CLAIMS B	(French)	EPAB95	1013
SPEC A	(English)	EPABF1	9215
SPEC B	(English)	EPAB95	9192
Total word coun	- document A		10161
Total word coun	t - document B		11700
Total word coun	t - documen	ts A + B	21861

INTERNATIONAL PATENT CLASS: G06F-017/60

- ...SPECIFICATION for a variety of stocks; U.S. Patent No. 3,573,747, which discloses an anonymous trading system for selling fungible properties between subscribers to the system; U.S. Patent No. 3,581,072, which discloses the use of...
- ...SPECIFICATION for a variety of stocks; U.S. Patent No. 3,573,747, which discloses an anonymous trading system for selling fungible properties between subscribers to the system; U.S. Patent No. 3,581,072, which discloses the use of...

11/3,K/4 (Item 4 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

(c) 2003 European Patent Office. All rts. reserv.

00401570

Anonymous matching system

Anonymes Geschaftsbeziehungssystem

Systeme d'appariement anonyme

PATENT ASSIGNEE:

REUTERS LIMITED, (1237191), 85 Fleet Street, London, EC4P 4HA, (GB), (applicant designated states: CH;DE;FR;GB;LI)

INVENTOR:

Silverman, David L., 51 Dover Hill Drive, Nesconset, New York 11767, (US) Keller, Norman, 119 Chestnut Street, Mt. Sinai, New York 11766, (US)

LEGAL REPRESENTATIVE:

Waldren, Robin Michael et al (55602), MARKS & CLERK, 57-60 Lincoln's Inn

Fields, London WC2A 3LS, (GB)

PATENT (CC, No, Kind, Date): EP 399850 A2 901128 (Basic)

EP 399850 A3 910911

EP 399850 B1 951213

APPLICATION (CC, No, Date): EP 90305762 900525;

PRIORITY (CC, No, Date): US 357478 890526 DESIGNATED STATES: CH; DE; FR; GB; LI

INTERNATIONAL PATENT CLASS: G06F-017/60

ABSTRACT WORD COUNT: 243

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text Language Update Word Count

CLAIMS A (English) EPABF1 559 SPEC A (English) EPABF1 13131

Total word count - document A 13690
Total word count - document B 0

Total word count - documents A + B 13690

INTERNATIONAL PATENT CLASS: G06F-017/60

...SPECIFICATION A- 4,412,287, which discloses as an automated stock exchange in which a computer matches buy and sell orders for a variety of stocks; US-A- 3,573,747, which discloses an anonymous trading system for selling fungible properties between subscribers to the system; US-A- 3,581,072, which discloses the use of a special...

11/3,K/5 (Item 1 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00925642 **Image available**

METHOD AND SYSTEM OF ANONYMOUSLY TRADING SECURITIES ON-LINE

PROCEDE ET SYSTEME PERMETTANT DE NEGOCIER DES TITRES EN LIGNE DE FACON ANONYME

Patent Applicant/Assignee:

BONDMART TECHNOLOGIES INC, 2421 Broadway, 2nd Floor, Redwood City, CA 94063, US, US (Residence), US (Nationality)

Inventor(s):

BOWLES Mark E, 30 Tripp Court, Woodside, CA 94062, US,

TADDEO Nicholas J, 61 Willow Road, Menlo Park, CA 94025, US,

Legal Representative:

MORGAN LEWIS & BOCKIUS LLP (agent), Boswell, MaryJane, 1111 Pennsylvania Avenue, NW, Washington, DC 20004, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200259711 A2-A3 20020801 (WO 0259711)

Application: WO 2001US44235 20011128 (PCT/WO US0144235)

Priority Application: US 2000722622 20001128

Designated States: CA JP

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

Publication Language: English Filing Language: English

Fulltext Word Count: 8845

Main International Patent Class: G06F-017/60

Fulltext Availability:

Claim

- ... system over the public network to the first investor, the second investor, and a settlement agent .
 - 3 The method of anonymously trading securities according to claim 1, further comprising the steps of. canceling the first order by the...

11/3,K/6 (Item 2 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00922112 **Image available**

ANONYMOUS AUCTIONING OF STRUCTURED FINANCIAL PRODUCTS OVER A COMPUTER NETWORK

VENTE AUX ENCHERES ANONYME DE PRODUITS FINANCIERS STRUCTURES SUR UN RESEAU INFORMATISE

Patent Applicant/Assignee:

VERTICALCROSSINGS COM INC, 122 East 42nd Street, New York, NY 10168, US, US (Residence), US (Nationality)

Inventor(s)

KAPLAN Harry A, 95 Kane Street, Brooklyn, NY 11231, US, DOWNES Patrick F, 42 Midwood Road, Greenwich, CT 06830, US,

Legal Representative:

HOPKINS Brian P (agent), Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., One Financial Center, Boston, MA 02111, US,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200256146 A2-A3.20020718 (WO 0256146) WO 2002US684 20020111 (PCT/WO US0200684)

Application: WO 2002US684 20020111 Priority Application: US 2001261502 20010112

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English Fulltext Word Count: 13284

Main International Patent Class: G06F-017/60

Fulltext Availability: Detailed Description

Detailed Description

... the disclosed system is to create a centralized B-to-B emarketplace site where potential **buyers** and **sellers** of structured products can meet **anonymously** and **trade securities**. The system's site utilizes the same methodologies incorporated in today's "hit-or-miss...and complete investor anonymity.

An overview of the process is illustrated in Fig. 18. Accordingly, anonymous indications by buyers of securities of interests in purchasing certain securities are registered and stored on a database (S20-S21). The interests of all buyers are...

```
11/3,K/7
              (Item 3 from file: 349)
DIALOG(R) File 349:PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.
00916634
            **Image available**
PRE-LISTED SHARE CIRCULATION SYSTEM
SYSTEME DE CIRCULATION D'ACTIONS PREALABLEMENT COTES
Patent Applicant/Assignee:
  ROKUJYUICHI LIMITED CO LTD, 2-14-4, Nakane, Meguro-ku, Tokyo 152-0031, JP
    , JP (Residence), JP (Nationality), (For all designated states except:
    US)
  CONSULTING FIRM INC, Shin-kojimachi Building 1F, 4-3-3, Kojimachi,
    Chiyoda-ku, Tokyo 102-0082, JP, JP (Residence), JP (Nationality), (For
    all designated states except: US)
Patent Applicant/Inventor:
  HIGASHINO Seiichi, 3-16-13, Denenchofu, Ota-ku, Tokyo 145-0071, JP, JP
    (Residence), JP (Nationality), (Designated only for: US)
  SASAJIMA Hiroshi, Shin-Kojimachi Building 1F, 4-3-3, Kojimachi,
    Chiyoda-ku, Tokyo 102-0083, JP, JP (Residence), JP (Nationality),
    (Designated only for: US)
Legal Representative:
  OKUDA Hiroyuki (et al) (agent), Seiko Toranomon Building 2F, 8-10,
    Toranomon 1-chome, Minato-ku, Tokyo 105-0001, JP,
Patent and Priority Information (Country, Number, Date):
  Patent:
                        WO 200250734 A1 20020627 (WO 0250734)
  Application:
                        WO 2001JP11040 20011217
                                                (PCT/WO JP0111040)
  Priority Application: JP 2000384285 20001218; JP 2001379261 20011212
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU
  CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS KE KG KP KR
  KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
  SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
  (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: Japanese
Filing Language: Japanese
Main International Patent Class: G06F-017/60
English Abstract
 ...sent from a user terminal via the Internet, selling order information
  is stored if an order of selling of stocks of the specific shop is
  sent from another user terminal via the Internet, the selling order
  is matched with the purchase order to sell / purchase the stocks .
 11/3,K/8
              (Item 4 from file: 349)
DIALOG(R) File 349:PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.
           **Image available**
SYSTEM AND METHOD FOR PROTECTING POSITIONS IN VOLATILE MARKETS
SYSTEME ET PROCEDE PERMETTANT DE PROTEGER DES POSITIONS DANS DES MARCHES
```

INTERACTIVE SYSTEMS WORLDWIDE INC, 2 Andrews Drive, West Paterson, NJ

07424, US, US (Residence), US (Nationality)

VOLATILS

Inventor(s):

Patent Applicant/Assignee:

ALBANESE Bernard J, 18 Doremus Drive, Towaco, NJ 07082, US, MINDES Barry M, 32 Heights Road, Wayne, NJ 07470, US,

Legal Representative:

BALANCIA Victor N (et al) (agent), Pennie & Edmonds LLP, 1155 Avenue of the Americas, New York, NY 10036, US,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200229982 A2-A3 20020411 (WO 0229982)

Application:

WO 2001US31399 20011005 (PCT/WO US0131399)

Priority Application: US 2000238193 20001005

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English Fulltext Word Count: 10935

Main International Patent Class: G06F-017/60

Fulltext Availability: Detailed Description

Detailed Description

... and similar but less formally-empowered trading functionaries, such as market makers, is simply to match investors' orders to buy stocks with orders to sell them.

Trades on the stock market are made when bid and asked prices that traders on the two sides of the transaction are willing to accept are in agreement. The...trading instruments are disclosed in United States Patents No.: 3.,573.,747, which discloses an anonymous trading system for selling fungible properties between subscribers to the system; 3,581,072, which discloses the use of a special purpose digital

...goods; 4,412.,287, which discloses as an automated stock exchange in which a computer matches buy and sell orders for a variety of stocks; 4,674,044, which discloses an automated securities trading system; and 5,136,,501, which discloses an anonymous system where bids are automatically matched against offers based on the credit limit between the potential parties.

United States Patent No. 5.,573,244 discloses a method for wagering at fixed handicaps...

11/3,K/9 (Item 5 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00895539 **Image available**

METHOD FOR SEARCHING FINANCIAL SECURITIES AND RELEVANT INTELLECTUAL PROPERTY

PROCEDE DE RECHERCHE DE TITRES FINANCIERS ET PROPRIETE INTELLECTUELLE CORRESPONDANTE

Patent Applicant/Inventor:

SICK Terrence, 1025 Exchange Street, Rochester, NY 14608, US, US

(Residence), US (Nationality) SCHNEIDER Eric, 13944 Cedar Road #258, University Heights, OH 44118, US, US (Residence), US (Nationality) WEINER Michael L, 633 Summit Drive, Webster, NY 14580, US, US (Residence) · , US (Nationality) Legal Representative: GREENWALD Howard J (et al) (agent), Greenwald & Basch LLP, Suite 2490, 349 West Commercial Street, East Rochester, NY 14445, US, Patent and Priority Information (Country, Number, Date): WO 200229668 A1 20020411 (WO 0229668) Patent: Application: WO 2001US30288 20010927 (PCT/WO US0130288) Priority Application: US 2000236974 20000930 Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR (OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW (EA) AM AZ BY KG KZ MD RU TJ TM Publication Language: English Filing Language: English Fulltext Word Count: 7738 Main International Patent Class: G06F-017/60 Fulltext Availability: Claims Claim ... screening service, a method of searching a financial database and an intellectual property database in order to find securities matching user search criteria and relevant intellectual property, wherein the users access the database over the Internet, the method comprising: searching the database for records matching... 11/3,K/10 (Item 6 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. 00883996 APPARATUS AND METHOD FOR ADDING LIQUIDITY TO AN ECN AND IMPROVING EXECUTIONS OF ORDERS FOR SECURITIES APPAREIL ET PROCEDE PERMETTANT D'AJOUTER DE LA LIQUIDITE A UN RESEAU DE COMMUNICATION ELECTRONIQUE ET D'AMELIORER L'EXECUTION D'ORDRES POUR LES TITRES Patent Applicant/Assignee: TRADESCAPE TECHNOLOGIES L L C, 135 East 57th Street, 31st Floor, New York, NY 10022, US, US (Residence), US (Nationality) Inventor(s): AMANAT Omar, 155 East 31st Street, New York, NY 10066, US, BUNDY Michael, 22422 Cove Hollow, Katy, TX 77450, US, Legal Representative: ARNOLD Gordon T (agent), Arnold & Associates, 2603 Augusta, Suite 800, Houston, TX 77057, US, Patent and Priority Information (Country, Number, Date): Patent: WO 200217185 A2 20020228 (WO 0217185) WO 2001US25302 20010813 (PCT/WO US0125302) Application:

Priority Application: US 2000643227 20000822

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English

Filing Language: English Fulltext Word Count: 7498

Main International Patent Class: G06F-017/60

Fulltext Availability: Detailed Description

Detailed Description

... are all used as synonyms for services accessible through electronic communications networks capable of executing orders for securities by accepting from broker - dealers buy orders and sell orders, matching or failing to match buy orders with sell orders, and communicating the results to the broker - dealers. Generally the term "market" is used to refer to these entities. All "markets," as the...

11/3,K/11 (Item 7 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00873794

METHOD AND APPARATUS FOR AUTOMATED CANCELLATION OF ORDERS FOR SECURITIES PROCEDE ET APPAREIL POUR ANNULATION AUTOMATISEE D'ORDRES SUR TITRES Patent Applicant/Assignee:

TRADESCAPE TECHNOLOGIES L L C, 135 East 57th Street, 31st Floor, New York, NY 10022, US, US (Residence), US (Nationality) Inventor(s):

AMANAT Irfan, 200 East 94th Street, Apartment 1712, New York, NY 10128, US,

BUNDY Michael, 22422 Cove Hollow, Katy, TX 77450, US,

Legal Representative:

BIGGERS John R (agent), Arnold & Associates, 2603 Augusta Drive, Suite 800, Houston, TX 77057, US,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200207055 A2 20020124 (WO 0207055)

Application:

WO 2001US22568 20010718 (PCT/WO US0122568)

Priority Application: US 2000619223 20000719

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English Fulltext Word Count: 21139

Main International Patent Class: G06F-017/60

Fulltext Availability:

Detailed Description

Detailed Description

... are all used as synonyras for services accessible through electronic communications networks capable of executing orders for securities by accepting from broker / dealers buy orders and sell orders, matching or failing to match buy orders with sell orders, and communicating the results to the broker / dealers . Generally the tenn "market,' is used to refer to these entities. All "markets," as the...

...symbols as described under the definitions of "ECN" and "market malcer."

"Market maker" means a **broker** / **dealer** providing **order matching** and liquidity in a stock by maintaining an inventory of the **stock** * **traded** through a national market.

Currently active market makers, their syrabols and names, are listed below...

11/3,K/12 (Item 8 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00858338

LATENCY MONITOR

PROCEDE ET SYSTEME DESTINE A AFFICHER LE DELAIS D'ATTENTE

Patent Applicant/Assignee:

TRADESCAPE TECHNOLOGIES L L C, 31st Floor, 135 East 57th Street, New York, NY 10022, US, US (Residence), US (Nationality) Inventor(s):

BUNDY Michael, 22422 Cove Hollow, Katy, TX 77450, US,

Legal Representative:

BIGGERS John R (agent), Arnold & Associates, Suite 800, 2603 Augusta Drive, Houston, TX 77057, US,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200191000 A2 20011129 (WO 0191000)

Application:

WO 2001US16083 20010517 (PCT/WO US0116083)

Priority Application: US 2000574595 20000519

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English Fulltext Word Count: 5834

Main International Patent Class: G06F-017/60

Fulltext Availability: Detailed Description

Detailed Description

... are all used as synonyms for services accessible through electronic communications networks capable of executing orders for securities by accepting from broker - dealers buy orders and sell orders, matching or failing to match buy orders with sell orders, and

communicating the results to the **broker** - dealers . Generally the term "market" is used to refer to these entities. All "markets," as the...

...symbols as described under the definitions of "ECN" and "market maker."

"Market maker" means a **broker - dealer** providing **order matching** and liquidity in a stock by maintaining an inventory of the **stock**. Market makers typically **trade** their inventories through exchanges. Some currently active market makers, their symbols and names, are listed...

11/3,K/13 (Item 9 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00850748 **Image available**

SYSTEM AND METHOD FOR PROCESSING TRADES USING VOLUME-WEIGHTED-AVERAGE PRICING TECHNIQUES

SYSTEME ET PROCEDE DE TRAITEMENT DE TRANSACTIONS PAR DES TECHNIQUES D'ETABLISSEMENT DE PRIX MOYENS PONDERES EN FONCTION DU VOLUME

Patent Applicant/Assignee:

BLOOMBERG LP, 499 Park Avenue, New York, NY 10022, US, US (Residence), US (Nationality)

GLOBAL EXECUTION TECHNOLOGIES LTD, Crawford House, 23 Church Street, Hamilton, Bermuda HM11, BM, -- (Residence), -- (Nationality) Inventor(s):

BANG Kim, 98 Chestnut Street, Englewood, NJ 07631, US, SLONE Jonathan, 64 Horatio Street, New York, NY 10014, US, Legal Representative:

DEROSA Frank J (agent), Brown Raysman Millstein Felder & Steiner LLP, 900 Third Avenue, New York, NY 10022-4728, US,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200184419 A1 20011108 (WO 0184419)

Application: WO 2001US11145 20010405 (PCT/WO US0111145)

Priority Application: US 2000562506 20000501

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English Fulltext Word Count: 5181

Main International Patent Class: G06F-017/60

Fulltext Availability: Detailed Description

English Abstract

...are employed regardless of whether orders are matched continuously or non-continuously (22). The invention match orders of buyers and sellers who wish to trade designated quantities of securities at a price based on the VWAP (28) for security in question determined with reference...

Detailed Description

... continuously or non-continuously, or both continuously and.

non-continuously.

The disclosed method and system match orders of buyers and sellers who wish to trade designated quantities of securities at a price based on the VWAP for the security in 30 question, determined with...

11/3,K/14 (Item 10 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00845281

APPARATUS AND METHOD FOR AUTOMATED DISPLAY OF MARKET ACTIVITY DISPOSITIF ET PROCEDE SERVANT A AFFICHER AUTOMATIQUEMENT UNE ACTIVITE DE

Patent Applicant/Assignee:

TRADESCAPE TECHNOLOGIES L L C, 31st Floor, 135 East 57th Street, New York, NY 10022, US, US (Residence), US (Nationality)

Inventor(s):

BORZENKO Alexander, 5939 Grove Street, Ridgewood, NY 11385, US, Legal Representative:

BIGGERS John R (agent), Arnold & Associates, 2603 Augusta, Suite 800, Houston, TX 77057, US,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200177963 A2 20011018 (WO 0177963)

Application: WO 2001US11373 20010406 (PCT/WO US0111373) Priority Application: US 2000545974 20000410

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English Fulltext Word Count: 12632

Main International Patent Class: G06F-017/60

Fulltext Availability: Detailed Description

Detailed Description

... all used as 5 synonyms for services accessible through electronic communications networks capable of executing orders for securities by accepting from broker / dealers buy orders and sell orders, matching or failing to match buy orders with sell orders, and communicating the results to the broker / dealers . Generally, the term "market" is used to refer to these entities. All "markets, as the...

...symbols as described under the definitions of "ECN" and "market maker."

"Market maker' 'means a broker / dealer providing order matching and liquidity in a stock by maintaining an inventory of the stock traded through a national market.

Currently active market makers, their symbols and names, are listed below \dots

```
11/3,K/15
               (Item 11 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.
00840959
HEDGING EXCHANGE TRADED MUTUAL FUNDS OR OTHER PORTFOLIO BASKET PRODUCTS
COUVERTURE DE FONDS COMMUNS DE PLACEMENT OU D'AUTRES PRODUITS DE PANIER DE
    PORTEFEUILLE ECHANGES
Patent Applicant/Assignee:
  THE AMERICAN STOCK EXCHANGE LLC, 86 Trinity Place, New York, NY
    10006-1872, US, US (Residence), US (Nationality), (For all designated
    states except: US)
Patent Applicant/Inventor:
  GASTINEAU Gary L, 26 Knollwood Road, Short Hills, NJ 07078, US, US
    (Residence), US (Nationality), (Designated only for: US)
  WEBER Clifford, 6 Chadwick Court, Denville, NJ 07834, US, US (Residence),
    US (Nationality), (Designated only for: US)
Legal Representative:
  MALONEY Denis G (agent), Fish & Richardson P.C., 225 Franklin Street,
    Boston, MA 02110, US,
Patent and Priority Information (Country, Number, Date):
  Patent:
                        WO 200173647 A2 20011004 (WO 0173647)
  Application:
                        WO 2001US40374 20010326 (PCT/WO US0140374)
  Priority Application: US 2000536258 20000327
Parent Application/Grant:
  Related by Continuation to: US 2000536258 20000327 (CON)
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU
  CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
  KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
  SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 8160
Main International Patent Class: G06F-017/60
Fulltext Availability:
  Detailed Description
Detailed Description
... calculation is very close to net asset value.
```

Trading on exchanges such as the America Stock Exchange involves a trader called a specialist. A specialist tries to match buy orders with sell orders in a manner that maintains an orderly market. Often specialists and market...

11/3, K/16(Item 12 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv.

00837834 **Image available**

METHOD AND SYSTEM FOR A NETWORK-BASED SECURITIES MARKETPLACE PROCEDE ET SYSTEME DE TRANSACTIONS DE VALEURS BASEES SUR UN RESEAU Patent Applicant/Assignee:

UNIFIEDMARKET INC, 224 Birmingham Drive, Suite A, Cardiff-by-the-Sea, CA 92007, US, US (Residence), US (Nationality)

Inventor(s):

MILLARD Jeffrey R, 28551 Rancho Maralena, Laguna Niguel, CA 92677, US, OWENS William M, 1376 Peachwood Drive, Encinitas, CA 92024, US,

Legal Representative:

MORRIS Francis E (et al) (agent), Pennie & Edmonds LLP, 1155 Avenue of the Americas, New York, NY 10036, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200171459 A2-A3 20010927 (WO 0171459)
Application: WO 2001US9330 20010322 (PCT/WO US0109330)

Priority Application: US 2000191222 20000322

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English Fulltext Word Count: 30291

Main International Patent Class: G06F-017/60

Fulltext Availability: Detailed Description

Detailed Description

... orders for trades on all stocks to their agent on the exchange, and the floor broker takes these orders to the trading post for that stock . At the post a trader or specialist in one or more stocks accepts orders . The specialist may match the new order with a prior order and act as an agent for buyer and seller, receiving a commission from both. Alternatively, the specialist may enter the trade as...general, ECNs are centralized, computer-based order matching systems that display bids and offers of subscribers to the ECN and subscriber orders if bids mátch automatically match Otherwise, the best prices are posted on NASDAQ to compete with market makers. ECNs therefore trade only in stocks for which there are significant numbers of closely matched bids and offers on a given security posted on the ECN. Such securities are termed "liquid" - they trade...System act as an intermediary by matching one or more firm offers with a counter- party (this

is " Offer Matchinor ")

C, / a

Members who engage in transactions involving firm offers to **transact** in posted **securities** have the ability to choose any method of transaction settlement and any settlement services provider...

11/3,K/17 (Item 13 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00815114 **Image available**

METHOD AND SYSTEM FOR REBROKERING ORDERS IN A TRADING SYSTEM
PROCEDE ET SYSTEME DESTINES A RENEGOCIER DES ORDRES DANS UN SYSTEME
D'ECHANGE

Patent Applicant/Assignee:

XBOND CORPORATION, Suite 1200, 6000 Fairview Road, Charlotte, NC 28210, US, US (Residence), US (Nationality) Inventor(s): HUGHES Webster, 4807 Pellyn Farm Court, Charlotte, NC 28211, US, Legal Representative: OSTROW Seth H (et al) (agent), Brown Raysman Millstein Felder & Steiner LLP, 120 W. 45th Street, New York, NY 10036, US, Patent and Priority Information (Country, Number, Date): WO 200148668 A1 20010705 (WO 0148668) Patent: WO 2000US35492 20001228 (PCT/WO US0035492) Application: Priority Application: US 99173581 19991229; US 2000178049 20000124; US 2000201599 20000503; US 2000706678 20001106 Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG (AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW (EA) AM AZ BY KG KZ MD RU TJ TM Publication Language: English Filing Language: English Fulltext Word Count: 24404 Main International Patent Class: G06F-017/60 Fulltext Availability: Detailed Description Detailed Description ... which ultimately matches the original order. In embodiments for the trading of bonds, a broker dealer receiving an order from an investor to buy or sell bonds
checks whether it has received a matching order from another investor or broker dealer and, if not, proceeds to rebroker the order according to instructions from the ivnestor, stored... 11/3,K/18 (Item 14 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. **Image available** 00792483 ELECTRONIC TRADING SYSTEM SUPPORTING ANONYMOUS NEGOTIATION AND INDICATORS OF INTEREST SYSTEME DE COMMERCE ELECTRONIQUE SUPPORTANT UNE NEGOCIATION ANONYME ET DES INDICATEURS D'INTERET Patent Applicant/Assignee: BLOOMBERG LP, 499 Park Avenue, New York, NY 10022, US, US (Residence), US (Nationality) Inventor(s): FOLEY Kevin, 30 River Road, Apartment 1A, New York, NY 10044, US, BANG Kim, 98 Chestnut Street, Englewood, NJ 07631, US, Legal Representative: DEROSA Frank J (agent), Brown Raysman Millstein Felder & Steiner LLP, 120 West 45th Street, New York, NY 10036, US, Patent and Priority Information (Country, Number, Date):

Bode Akintola 07-Apr-03

Patent:

Application:

Priority Application: US 99412408 19991005

WO 200125996 A1 20010412 (WO 0125996)

WO 2000US26866 20000929 (PCT/WO US0026866)

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG

SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English

Filing Language: English Fulltext Word Count: 8812

Main International Patent Class: G06F-017/60

Fulltext Availability:

Claims

Claim

... 3o number of shares offered at an agreed price.

7 In a system for conducting anonymous trades of **stock** between **users** of the system, including at least one computer with associated computer memory which receives anonymous...

11/3,K/19 (Item 15 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

(c) 2003 WIPO/Univentio. All rts. reserv.

00777985 **Image available**

TRUE DOLLAR FLOW INDICATOR SYSTEM

SYSTEME D'INDICATION DES COURS REELS EN DOLLARS

Patent Applicant/Inventor:

BERACASA Carlos A, 36 East 64th Street, New York, NY 10021, US, US (Residence), US (Nationality)

Legal Representative:

FILIPEK Stephan J, Fish & Richardson P.C., Suite 2800, 45 Rockefeller

Plaza, New York, NY 10111, US

Patent and Priority Information (Country, Number, Date):

Patent: WO 200111521 A1 20010215 (WO 0111521)

Application: WO 2000US21319 20000804 (PCT/WO US0021319)

Priority Application: US 99370974 19990809

Designated States: CA JP

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Publication Language: English Filing Language: English

Fulltext Word Count: 11124

Main International Patent Class: G06F-017/60

Fulltext Availability: Detailed Description

Detailed Description

... Island" or "Instinet", which are electronic meeting places for institutions and brokerages to display and **match stock orders**. Once a **user** has finished viewing screen 300, she may return to the home page screen 200 by...

11/3,K/20 (Item 16 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

(c) 2003 WIPO/Univentio. All rts. reserv.

Image available 00777983

ELECTRONIC BARTERING SYSTEM

SYSTEME D'ECHANGE ELECTRONIQUE

Patent Applicant/Inventor:

HIMMELSTEIN Richard B, 7 Braden Drive, Palermo, NJ 08223, US, US (Residence), US (Nationality)

Legal Representative:

HANCHUK Walter G (agent), Morgan & Finnegan, L.L.P., 345 Park Avenue, New York, NY 10154-0053, US,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200111518 A2 20010215 (WO 0111518)

Application:

WO 2000US21018 20000802 (PCT/WO US0021018)

Priority Application: US 99147243 19990805; US 99153142 19990909; US

99161318 19991025; US 99454035 19991203

Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English

Filing Language: English

Fulltext Word Count: 17101

Main International Patent Class: G06F-017/60

Fulltext Availability: Detailed Description

Detailed Description

- S. Patent No. 3,573,747 to Adams, et al., which discloses a system for properties between orders for fungible matching buy and sell traders . After the initial match, one embodiment of this system allows traders to negotiate other terms of the transaction while all traders are continuously appraised of the...
- ... The system disclosed in U.S. Patent No. 4,412,287 to Braddock relates to stock and discloses a central computer that matches buy and sell orders from a plurality of user terminals. In U.S. Patent No. 5,689,652 to Lupien, et al. a computer...

(Item 17 from file: 349) 11/3,K/21

DIALOG(R) File 349: PCT FULLTEXT

(c) 2003 WIPO/Univentio. All rts. reserv.

00774519 **Image available**

AUTOMATED SYSTEM FOR CONDITIONAL ORDER TRANSACTIONS IN SECURITIES OR OTHER ITEMS IN COMMERCE

SYSTEME AUTOMATIQUE DE NEGOCIATION CONDITIONNELLE DE VALEURS MOBILIERES OU D'AUTRES EFFETS DE COMMERCE

Patent Applicant/Inventor:

NIEBOER Robert Scott, 217 Lynwood Terrace, Nashville, TN 37205, US, US (Residence), US (Nationality)

BALCARCE Pedro (Peter) V, 1617 Maple Timber Court, Antioch, TN 37013, US, US (Residence), US (Nationality)

ZHIDOV Ivan N, 3721 Hillbrook Court, Nashville, TN 37211, US, US

(Residence), RU (Nationality) ELDRED Micah James, Apartment 1117, 510 Old Hickory Boulevard, Nashville, TN 37209, US, US (Residence), US (Nationality) Legal Representative: BIRCH Anthony L, 6915 Barrett Lane, Bethesda, MD 20814, US Patent and Priority Information (Country, Number, Date): Patent: WO 200108065 A1 20010201 (WO 0108065) WO 2000US19567 20000724 (PCT/WO US0019567) Application: Priority Application: US 99359686 19990723 Designated States: AU BR CN JP KR MX RU US ZA (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE Publication Language: English Filing Language: English Fulltext Word Count: 15515 Main International Patent Class: G06F-017/60 English Abstract An apparatus and method of automatically and anonymously buying and selling positions in fungible properties between subscribers over a network is described, an embodiment of which relates to the buying and selling... 11/3,K/22 (Item 18 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv. **Image available** METHOD AND APPARATUS FOR PROCESSING SECURITIES TRANSACTIONS PROCEDE ET APPAREIL PERMETTANT DE TRAITER DES TRANSACTIONS PORTANT SUR DES TITRES Patent Applicant/Assignee: GLOBENET CAPITAL CORPORATION, 507 N. New York Avenue, Suite 200, Winter Park, FL 32789, US, US (Residence), US (Nationality) Inventor(s): MAGILL Louis, GlobeNet Stock Exchange, Inc., 507 N. New York Avenue, Suite 200, Winter Park, FL 32789, US, SEMONES Bob, GlobeNet Stock Exchange, Inc., 507 N. New York Avenue, Suite 200, Winter Park, FL 32789, US, Legal Representative: KURTZ Richard (et al) (agent), 12th Floor, 1750 Tysons Boulevard, Mcclean, VA 22102, US, Patent and Priority Information (Country, Number, Date): WO 200102930 A2-A3 20010111 (WO 0102930) Patent: Application: WO 2000US18258 20000630 (PCT/WO US0018258) Priority Application: US 99141859 19990701; US 99155489 19990923 Designated States: AE AG AL AM AT AT (utility model) AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ CZ (utility model) DE DE (utility model) DK DK

(utility model) DM DZ EE EE (utility model) ES FI FI (utility model) GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KR (utility model) KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SK (utility model) SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English Fulltext Word Count: 11345

Main International Patent Class: G06F-017/60 Fulltext Availability:
Detailed Description
Claims

English Abstract

A method and system for trading securities (100) and other goods and services which incorporates an electronic auction and matching system which connects buyers and sellers (105) of securities or other goods and services via the Internet (120). The disclosed embodiments may incorporate an...

Detailed Description ... and sell order data.

It is another object of the present invention to provide a **securities trading** system io which allows **users** to place a **match order** which dynamically searches out the best bid and offer and deten-nines the decimalized mid...

Claim

... trading system, comprising:

a single electronic cominunications network for sending and receiving web pages including securities transaction order forms, for receiving orders, for matching

securities buyers with securities sellers , and for executing
orders;

whereby a user interacts directly with said securities trading system using the internet as a transport.

2 The...

...interface communicates with said network using TCP/IP and Secure Sockets Layer.

24 An automated **securities trading** system for displaying an interactive open

order book and for matching buyer bids to seller offers, comprising:

means for generating a web page which displays an open order book to a
securities buyer or securities seller, said open order book
comprising data describing a
40

plurality of current bid prices and a plurality of...

11/3,K/23 (Item 19 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

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00755447 **Image available**

SECURE SYSTEM FOR TRADING FUNGIBLE COMMODITIES SYSTEME SECURISE CONCU POUR DES BIENS FONGIBLES

Patent Applicant/Inventor:

HOLWAY Richard A, 89 Bacon Street, Winchester, MA 01890, US, US (Residence), US (Nationality)

Legal Representative:

NIEBUHR Frederick W, Larkin, Hoffman, Daly & Lindgren, Ltd., 7900 Xerxes Avenue South, Bloomington, MN 55431, US

Patent and Priority Information (Country, Number, Date):

Patent: WO 200068857 A1 20001116 (WO 0068857)

WO 2000US12918 20000511 (PCT/WO US0012918) Application:

Priority Application: US 99133655 19990511

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN YU ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English

Fulltext Word Count: 10681

Main International Patent Class: G06F-017/60

Fulltext Availability: Detailed Description

Detailed Description

... networked communication and processing system wherein the identification, pairing and alerting of pre-qualified counter- parties with indications of potential transactional interest in certain properties is effectuated automatically, anonymously and securely without prior disclosure of those interests.

Examining the special types of information and...

11/3, K/24(Item 20 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

(c) 2003 WIPO/Univentio. All rts. reserv.

00739253 **Image available**

A SYSTEM AND METHOD FOR CONDUCTING SECURITIES TRANSACTIONS OVER A COMPUTER NETWORK

SYSTEME ET PROCEDE DE CONDUITE DE TRANSACTIONS DE VALEURS SUR UN RESEAU INFORMATIQUE

Patent Applicant/Assignee:

WIT CAPITAL CORPORATION, 826 Broadway, New York, NY 10003, US, US (Residence), US (Nationality)

Inventor(s):

MAURO Charles L, 130 East 75th Street, New York, NY 10021, US KLEIN Andrew D, 70 East 10th Street, New York, NY 10003, US BUIST Walter D, 405 Springfield Avenue, Hasbrouck, NJ 07604, US Legal Representative:

MORRIS Francis E, Pennie & Edmonds LLP, 1155 Avenue of the Americas, New York, NY 10036, US

Patent and Priority Information (Country, Number, Date):

WO 200052619 A1 20000908 (WO 0052619) Patent:

Application: WO 2000US5150 20000229 (PCT/WO US0005150)

Priority Application: US 99122208 19990301; US 99292552 19990415; US 99292553 19990415

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

- (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
- (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
- (AP) GH GM KE LS MW SD SL SZ TZ UG ZW
- (EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English Fulltext Word Count: 35999

Main International Patent Class: G06F-017/600 Fulltext Availability:
Detailed Description

Claims

Detailed Description

... traders on the system. The purpose of the negotiations system 20 is to pen-nit traders to attempt to better the price of buying or selling stock as compared against the best bid and offer shown in the order book display. Tile negotiations screen has three main components: the "Traders at a price level"screen 4200, the "Out-going negotiations" screen 4205, and the "In...20 to try to negotiate, so lie clicks on the price S50.25 in the order book display. The negotiations screen 4200 is displayed at step 4872, with sell offers of IBM stock at \$50.25 displayed, including the seller 's offer to sell I 00 shares of IBM at S50 At step 4874, the...

Claim

SELECTED STOCK
SUBSTITUTE SHEET @RULE 26)
SYSTEM DISPLAYS 3390
NEWS ALERTS TO USER
ACCORDING TO USER REAL-TIME QUOTE
DEFINED DISPLAY FEED FROM
CONFIGURATION. ORDER MATCH
"NEWS OUT" FUNCTION 3335 NEWS SERVER SYSTEM
IS SHOWN IN STOCK PASSES NEWS TRADE MATCH
SUMMARY DISPLAY AND ALERTS TO SYSTEM PASSES
OR IN ORDER BOOK OUTSIDE SERVICES DATA...

11/3,K/25 (Item 21 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.

00734792 **Image available**

SYSTEM AND METHOD FOR AN AUTOMATED EXCHANGE SYSTEME ET PROCEDE D'ECHANGE AUTOMATISE

Patent Applicant/Assignee:

NET EXCHANGE, 324 E. Whittley, P.O. Box 1861, Avalon, CA 90704-1009, US, US (Residence), US (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

CLIFNER Lance A, 13224 Jacarte, San Diego, CA 92130, US, US (Residence), US (Nationality), (Designated only for: US)

ISHIKIDA Takashi, San Diego, CA, US, US (Residence), US (Nationality), (Designated only for: US)

LEDYARD John, San Diego, CA, US, US (Residence), US (Nationality), (Designated only for: US)

POLK Charles W, 324 E. Whittley, P.O. Box 1861, Avalon, CA 90704-1861, US , US (Residence), US (Nationality), (Designated only for: US)

JOHNSTON Wallace W, Norwell, MA, US, US (Residence), US (Nationality), (Designated only for: US)

HOWIESON Andrew W, Duxbury, MA, US, US (Residence), US (Nationality), (Designated only for: US)

Legal Representative:

```
LAND John, Fish & Richardson, P.C., Suite 1400, 4225 Executive Drive, La
    Jolla, CA 92037, US
Patent and Priority Information (Country, Number, Date):
                        WO 200048109 A1 20000817 (WO 0048109)
  Patent:
                        WO 2000US3594 20000211 (PCT/WO US0003594)
  Application:
  Priority Application: US 99119888 19990212
Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK
  DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
  LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ
  TM TR TT TZ UA UG US UZ VN YU ZA ZW
  (EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
  (OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
  (AP) GH GM KE LS MW SD SL SZ TZ UG ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 25077
Main International Patent Class: G06F-017/60
Fulltext Availability:
  Detailed Description
Detailed Description
... those items.
  - 57
  Ticketing Phase (step 214 -FIG. 1 7)
                                         trading , the final procedure in
  In certain embodiments, such as bond
  the order matching process is the matching of individual buyers and
   sellers for each trade transaction.
  Since trading is done from a pool, this step is necessary...
 11/3, K/26
               (Item 22 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.
00576356
            **Image available**
METHOD AND SYSTEM FOR PROCESSING AND
                                           TRANSMITTING ELECTRONIC REVERSE
    AUCTION INFORMATION
                              TRAITEMENT ET DE TRANSMISSION DE DONNEES
PROCEDE
        \mathbf{E}\mathbf{T}
              SYSTEME
                        DE
    ELECTRONIQUES DE MISE AUX ENCHERES INVERSEES
Patent Applicant/Assignee:
  CARLTON-FOSS John,
Inventor(s):
  CARLTON-FOSS John,
Patent and Priority Information (Country, Number, Date):
                       WO 200039729 A1 20000706 (WO 0039729)
  Patent:
                       WO 99US30609 19991220 (PCT/WO US9930609)
  Application:
  Priority Application: US 98113874 19981227; US 99332321 19990614
Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK
  DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
  LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ
  TM TR TT TZ UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ
  BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT
  SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 10940
Main International Patent Class: G06F-017/60
```

Fulltext Availability:

Detailed Description

Detailed Description ... requestors wish to request.

Security brokerage firms for years have used automated transaction systems for matching buy and sell orders for securities. For example, NASDAQ's SOES (Small Order Execution System) system offers complete electronic matching of buyers and sellers. This system, however, does not operate an auction. It merely pairs buy orders with sell...

11/3,K/27 (Item 23 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.

00563461 **Image available**
CROSSING NETWORK AND METHOD
RESEAU CROISE ET PROCEDE Y RELATIF
Patent Applicant/Assignee:
 OPTIMARK TECHNOLOGIES INC,
 RICKARD John T,
 LUPIEN William A,
Inventor(s):

RICKARD John T, LUPIEN William A,

Patent and Priority Information (Country, Number, Date):
Patent: WO 200026834 A2 20000511 (WO 0026834)
Application: WO 99US25369 19991029 (PCT/WO US9925369)

Priority Application: US 98106268 19981030

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

Publication Language: English Fulltext Word Count: 25235

Main International Patent Class: G06F-017/60 Fulltext Availability:
Detailed Description

Detailed Description

... Pat. No. 4,412,287, which discloses an automated stock exchange in which a computer **matches** buy and sell **orders** for a variety of stocks:

Pat. 3,573,747, which discloses an **anonymous trading** system for **selling fungible properties** between **subscribers** to the system; U.S. Pat. 3,581,072, which discloses the use of a...

11/3,K/28 (Item 24 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.

00554402 **Image available**
USER-DEFINED DYNAMIC COLLABORATIVE ENVIRONMENTS

```
ENVIRONNEMENTS A COLLABORATION DYNAMIQUE DEFINIS PAR L'UTILISATEUR
Patent Applicant/Assignee:
  SCIENCE APPLICATIONS INTERNATIONAL CORPORATION,
 MILLER Craig,
 MANGIS Jeffrey K,
 LESTER Harold D,
 NICHOLAS John M,
 WALLO Andrew,
 KRESS Thomas P,
 CHEAL Linda J,
 WEATHERBEE James E Jr,
  DAVIES Linda M,
Inventor(s):
 MILLER Craig,
 MANGIS Jeffrey K,
 LESTER Harold D,
 NICHOLAS John M,
 WALLO Andrew,
 KRESS Thomas P.
 CHEAL Linda J.
 WEATHERBEE James E Jr.
  DAVIES Linda M,
Patent and Priority Information (Country, Number, Date):
                        WO 200017775 A2 20000330 (WO 0017775)
  Patent:
                        WO 99US21934 19990922 (PCT/WO US9921934)
  Application:
  Priority Application: US 98101431 19980922; US 99399753 19990921
Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK
  DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
  LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM
  TR TT TZ UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ
  BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT
  SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 29965
Main International Patent Class: G06F-017/60
Fulltext Availability:
  Detailed Description
Detailed Description
... items traded are well defined, and the terms of sale are rigid example
  of an order matching process in stock trading on an exchange.
   Users of an order - matching engine are all potential buyers and
  seller . They are qualified in advance using a process like that outlined
  by for auction with...
               (Item 25 from file: 349)
 11/3,K/29
DIALOG(R) File 349: PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.
            **Image available**
A REAL-TIME COMPUTERIZED STOCK TRADING SYSTEM
SYSTEME INFORMATIQUE DE TRANSACTIONS BOURSIERES EN TEMPS REEL
Patent Applicant/Assignee:
  MARKETXT INC,
Inventor(s):
  SATOW Michael,
  LEONG Stanley,
  HERMUS Michael W,
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CHOE Eugene,
Patent and Priority Information (Country, Number, Date):
                        WO 200011587 A1 20000302 (WO 0011587)
  Patent:
                        WO 99US18767 19990820
                                               (PCT/WO US9918767)
  Application:
  Priority Application: US 9897414 19980821
Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK
  DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
  LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM
  TR TT UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ
 MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ
  CF CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 7341
Main International Patent Class: G06F-017/60
Fulltext Availability:
  Claims
Claim
... notification of whether the trade order was matched from the trading
  system;
  and
  notifying the user of whether the trade order was matched .
  41 A data processing system for trading
                                            stocks comprising:
  a receiving component configured to receive trade orders from
  non-institutional users
  outside of ...
 11/3,K/30
               (Item 26 from file: 349)
DIALOG(R) File 349: PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.
            **Image available**
00524880
APPARATUS AND METHOD FOR TRADING OF BUNDLED ASSETS
DISPOSITIF ET PROCEDE DE NEGOCIATION D'ACTIFS GROUPES
Patent Applicant/Assignee:
  OMEGA CONSULTING INC,
Inventor(s):
  STALLAERT Jan,
  WHINSTON Andrew Bernard,
  GRAVES Glenn William,
Patent and Priority Information (Country, Number, Date):
                        WO 9956232 Al 19991104
  Patent:
                        WO 99US8405 19990416 (PCT/WO US9908405)
  Application:
  Priority Application: US 9867640 19980427
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES
  FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU
  LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA
  UG UZ VN YU ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM
  AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM
  GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 18328
Main International Patent Class: G06F-017/60
Fulltext Availability:
  Detailed Description
Detailed Description
... of U.S. Patent No. 3,573,547 issued on April 6, 1971. Instinct permits
                           Bode Akintola
                                          07-Apr-03
```

subscribers to engage in direct trading of securities among
themselves on an anonymous basis. In effect, Instinet replaces the
telephone and voice I 0 communications with communications conducted...

11/3,K/31 (Item 27 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

(c) 2003 WIPO/Univentio. All rts. reserv.

00496125 **Image available**

ENHANCED MATCHING APPARATUS AND METHOD FOR POST-TRADE PROCESSING AND SETTLEMENT OF SECURITIES TRANSACTIONS

APPAREIL ET PROCEDE AMELIORES POUR LE TRAITEMENT ULTERIEUR ET LE REGLEMENT DE TRANSACTIONS PORTANT SUR DES TITRES

Patent Applicant/Assignee:

THE DEPOSITORY TRUST COMPANY,

Inventor(s):

BRANDER Neil Frederick,

ZELENKA Andrew John,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 9927477 A1 19990603

Application: WO 98US23695 19981106 (PCT/WO US9823695)

Priority Application: US 97976159 19971121

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV

MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG

UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE

CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN

GW ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 13362

Main International Patent Class: G06F-017/60

Fulltext Availability:

Detailed Description

Detailed Description

... for this

securities trade;

The Unique NOE Reference Identifier to reference one NOE sent by **broker** 30 for the **securities trade** when one NOE can be used to provide information on

the entire trade order and can be matched to the H;

A Block Reference Number to provide the institution's internal reference number...

11/3,K/32 (Item 28 from file: 349)

DIALOG(R) File 349: PCT FULLTEXT

(c) 2003 WIPO/Univentio. All rts. reserv.

00467868 **Image available**

METHOD AND SYSTEM FOR CONFIRMATION AND SETTLEMENT FOR FINANCIAL TRANSACTIONS MATCHING

PROCEDE ET SYSTEME DE CONFIRMATION ET DE REGLEMENT POUR LA MISE EN CORRESPONDANCE DE TRANSACTIONS FINANCIERES

Patent Applicant/Assignee:

CROSSMAR INC,

Inventor(s):

HAWKINS John G,

```
JACOBS Dave M,
 FITZPATRICK Rick,
Patent and Priority Information (Country, Number, Date):
                        WO 9858333 A1 19981223
 Patent:
                        WO 98US12232 19980616 (PCT/WO US9812232)
 Application:
  Priority Application: US 9749851 19970617
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES
  FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD
 MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ
 VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH
  CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML
  MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 17845
Main International Patent Class: G06F-017/60
Fulltext Availability:
  Detailed Description
Detailed Description
... Worldwide Interbank Financial Telecommunication (SWIFT)
  Financial Network, a settlement instruction to the investor's clearing
  agent . By allowing securities participants to match
  executions on trade date and by automatically generating pre-matched
  settlement instructions to clearing...
               (Item 29 from file: 349)
 11/3,K/33
DIALOG(R) File 349: PCT FULLTEXT
(c) 2003 WIPO/Univentio. All rts. reserv.
            **Image available**
00423317
ON-LINE TRANSACTION PROCESSING SYSTEM FOR SECURITY TRADING
SYSTEME DE TRAITEMENT DES TRANSACTIONS EN LIGNE POUR LE COMMERCE DES
    VALEURS BOURSIERES
Patent Applicant/Assignee:
  THE NASDAQ STOCK MARKET INC,
Inventor(s):
  MARTYN Peter,
  DENAT Mark,
  PANG Mei,
  FLYNN Edward,
  WALDO Michael,
  SWEET Pamela A,
  COORDS Deane,
  HALL Diane Geberth,
  SLOMOWITZ Ira,
  FRANKE Maureen,
Patent and Priority Information (Country, Number, Date):
                        WO 9813778 A1 19980402
  Patent:
                        WO 97US17131 19970925 (PCT/WO US9717131)
  Application:
  Priority Application: US 96722847 19960926
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES
  FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK
  MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU
  ZW GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES
  FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD
 Publication Language: English
 Fulltext Word Count: 9156
```

Main International Patent Class: G06F-017/60 Fulltext Availability: Detailed Description

Detailed Description

... such as a small order execution order service or SelectNet, negotiating service, respectively. NASD provides SelectNet, an order and small order execution services. The user must use SelectNet for orders above a certain number of securities .

To place an order using SelectNet, the user inputs information into text box 4056. That information may include user identification, whether the order...

11/3,K/34 (Item 30 from file: 349) DIALOG(R) File 349: PCT FULLTEXT (c) 2003 WIPO/Univentio. All rts. reserv.

Image available 00351844

CROSSING NETWORK UTILIZING SATISFACTION DENSITY PROFILE RESEAU D'ADAPTATION PAR PROFIL DE DENSITE DE SATISFACTION

Patent Applicant/Assignee:

MJT HOLDINGS INC, LUPIEN William A,

RICKARD John T,

Inventor(s):

LUPIEN William A,

RICKARD John T,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 9634357 A1 19961031

WO 96US7265 19960426 (PCT/WO US9607265) Application:

Priority Application: US 95430212 19950427; US 95571328 19951212

Designated States: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB

GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL

PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN KE LS MW SD SZ UG AM

AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT

SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 17311

Main International Patent Class: G06F-017/60

Fulltext Availability:

Detailed Description

Detailed Description

... Pat. No. 4,412,287, which discloses an automated stock exchange in which a computer matches buy and sell orders for a variety of stocks; U.S. Pat.

3,573,747, which discloses an anonymous trading system for selling fungible properties between subscribers to the system; U.S. Pat. 3,581,072, which discloses the use of a...

4/7/03 Set Items Description S1 355098 SECURITIES OR BOND? ? OR FUNGIBLE() PROPERT? OR MUTUAL() FUN-D? ? OR STOCK? ? S2 677304 SALE? OR TRANSACT? OR ORDER? OR TRADING OR TRADE? OR PURCH-AS? OR BUY??? OR SELL??? MERCHANT? OR AGENT? OR TRADER? OR SELLER? OR PARTIES OR PA-S3 RTY OR DEALER? OR RETAILER? OR VENDOR? ? OR BROKER? ? CLIENT? OR USER? OR BUYER? OR CLIENT? OR CUSTOMER? OR CONS-S4 UMER? OR SUBSCRIBER? OR PURCHASER? S5 220797 MATCH? S6 4324 S1 (10N) S2 2965 S7 S5(10N)(ORDER? ? OR BID OR BIDS OR OFFER? OR AUCTION?) S8 47 S6 AND S7 S9 S6(5N) ANONYMOUS? S10 25 (S8 OR S9) AND (S3 OR S4) 21 S10 AND IC=G06F-017/60 \$11**>** (all considered) ? show files File 344: Chinese Patents Abs Aug 1985-2003/Jan (c) 2003 European Patent Office File 347: JAPIO Oct 1976-2002/Dec(Updated 030402) (c) 2003 JPO & JAPIO File 350: Derwent WPIX 1963-2003/UD, UM &UP=200323 (c) 2003 Thomson Derwent File 371: French Patents 1961-2002/BOPI 200209

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11/5/1 (Item 1 from file: 347)

DIALOG(R) File 347: JAPIO

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07400846 **Image available**

TRANSACTION EXECUTION SYSTEM AND ITS METHOD, AND RECORDING MEDIUM FOR RECORDING TRANSACTION EXECUTION PROGRAM OPERATED ON COMPUTER

PUB. NO.: 2002-269349 [JP 2002269349 A] PUBLISHED: September 20, 2002 (20020920)

INVENTOR(s): MATSUMOTO MORIHIRO

APPLICANT(s): ARTIS KK

APPL. NO.: 2001-070680 [JP 20011070680] FILED: March 13, 2001 (20010313)

INTL CLASS: G06F-017/60

ABSTRACT

PROBLEM TO BE SOLVED: To provide a framework having a function capable of grasping the transaction tendency of general investors together with a transaction execution function provided in a securities exchange, capable of executing transaction of a stock below a unit across plural stock companies.

SOLUTION: This system is equipped with an acceptance registration means for accepting a dealing order of securities or the like from a customer through a stock company, and registering the order in a transaction information storage means, an execution means for executing price matching and determining an execution price based on the dealing order registered in the transaction information storage means, and executing transaction based on the determined execution price, and a management means for storing by correlating right information such as transaction data including the dealing lorder of the customer, securities held by the customer or the like with characteristic information of the customer. The management means is constituted so that the right information such as the securities or the like can be managed in a sub-unit smaller than a distribution unit.

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11/5/2 (Item 2 from file: 347)

DIALOG(R) File 347: JAPIO

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07383040 **Image available**

UNDISCLOSED STOCK DISTRIBUTION SYSTEM

PUB. NO.: 2002-251540 [JP 2002251540 A] PUBLISHED: September 06, 2002 (20020906)

INVENTOR(s): TONO SEIICHI

SASAJIMA HIROSHI

APPLICANT(s): ROKUJUICHI LIMITED KK

CONSULTING FIRM KK

APPL. NO.: 2001-379261 [JP 20011379261] FILED: December 12, 2001 (20011212)

PRIORITY: 2000-384285 [JP 2000384285], JP (Japan), December 18, 2000

(20001218)

INTL CLASS: **G06F-01**7/60

ABSTRACT

Bode Akintola 07-Apr-03

PROBLEM TO BE SOLVED: To provide a place for matching sellers and buyers of restaurants by the Internet, a proper price setting means for the restaurants, and a means for disclosing various information of the restaurants.

SOLUTION: The information on shops subject to stock transactions is stored in a DB, points are calculated according to a predetermined conversion table or a calculation equation, and the prices of the shops are calculated. When purchase orders of stocks for a specific shop are transmitted from user terminals via the Internet, the order information is stored in the shop information DB. When sell orders of stocks are transmitted from other user terminals via the Internet, the order information is stored in the shop information DB, and matching of the sell orders and the purchase orders is made by a transaction process section.

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11/5/3 (Item 3 from file: 347)

DIALOG(R) File 347: JAPIO

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07091457 **Image available**
ORDER RECEPTION MANAGEMENT SYSTEM

PUB. NO.: 2001-319113 [JP 2001319113 A] PUBLISHED: November 16, 2001 (20011116)

INVENTOR(s): NAKA SHINICHI APPLICANT(s): MALL SERVICE KK

APPL. NO.: 2000-138222 [JP 2000138222] FILED: May 11, 2000 (20000511)

INTL CLASS: **G06F-017/60**; B65G-001/137

ABSTRACT

PROBLEM TO BE SOLVED: To provide an order reception management system which enables a **customer** side to securely receive an ordered article and saves the store-side trouble to input.

SOLUTION: This system comprises a web server 2 which stores a server-side database including at least server-side order reception data and server-side stock data and provides an on-line shop and a terminal which stores a terminal-side database including at least order reception data and stock data and can be connected to the web server. The server-side database is constituted so as to be linked with data regarding at least order reception among data inputted when purchase is made at the on-line shop. At least one of the web server and terminal is provided with a matching means which matches the values of at least the stock data and order reception data among the data stored in the server-side database and terminal-side database with each other.

COPYRIGHT: (C) 2001, JPO

11/5/4 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

015042292 **Image available**
WPI Acc No: 2003-102808/200309

XRPX Acc No: N03-082144

Computer-based electronic trading system has central controller that matches buy orders and sell orders for respective instruments in price, time priority basis

Patent Assignee: MARKET AXESS INC (MARK-N) Inventor: FINEBAUM M L; LEVIE B; MURPHY T

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Applicat No Kind Kind Date Date US 20020156719 Al 20021024 US 2000249849 P 20001117 200309 B US 20011921 A 20011115

Priority Applications (No Type Date): US 2000249849 P 20001117; US 20011921 A 20011115

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes US 20020156719 A1 66 G06F-017/60 Provisional application US 2000249849

Abstract (Basic): US 20020156719 A1

NOVELTY - Several traders enter their trading orders for debt instruments through respective computers, each of which executes a client application. A central controller coupled to the computer, matches buy orders and sell orders for respective debt instruments in a price, time priority basis, and reports all matched orders as executed rates to each of the traders

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Computer-based electronic trading method;
- (2) Insurable instrument purchasing method;
- (3) Insurable instrument trading method;
- (4) Insurable instrument trading apparatus;
- (5) Computer-based bond instrument trading method;(6) Computer-based bond instrument trading apparatus; and
- (7) Method for transacting in municipal security and transacting for insurance in conjunction with the municipal securities .

USE - Computer-based electronic trading system for trading debt instruments such as bonds .

ADVANTAGE - Allows direct but anonymous trading which permits both buyers and seller to see the price at which they trade and avoids the need and cost for intermediary. Enables traders to enter trading orders in a truly anonymous manner, thereby providing a bond market that is solely influenced by true market pricing and not by external, non-market influences. Allows the user to interact with any order, manage his own orders in real time and obtain real time information on his orders and trades.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the electronic trading system.

pp; 66 DwqNo 1/8

Title Terms: COMPUTER; BASED; ELECTRONIC; TRADE; SYSTEM; CENTRAL; CONTROL; MATCH; BUY; ORDER; SELL; ORDER; RESPECTIVE; INSTRUMENT; PRICE; TIME; PRIORITY; BASIS

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

11/5/5 (Item 2 from file: 350) DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv.

014595130

WPI Acc No: 2002-415834/200244

XRPX Acc No: N02-327159

Product supply network for Phamaceutical products using a computer network to handle order placement

Patent Assignee: MEDINET CORP LTD (MEDI-N)

Inventor: MEHTA M; SHAH S

Number of Countries: 096 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week WO 200221356 A2 20020314 WO 2001GB4000 Α 20010906 200244 B AU 200187846 Α 20020322 AU 200187846 Α 20010906 200251

Priority Applications (No Type Date): GB 200029517 A 20001204; GB 200021816 A 20000906

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200221356 A2 E 30 G06F-017/60

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200187846 A G06F-017/60 Based on patent WO 200221356

Abstract (Basic): WO 200221356 A2

NOVELTY - The **customer** order is placed with the central supply server which coordinates with the supply computers to fill the order. Details such as name of drug required e.g. brand name or generic, form e.g. pill, liquid, dosage and volume are specified and the supply server coordinates supplier bids for volumes and prices.

DETAILED DESCRIPTION - AN INDEPENDENT CLAIM is included for a method of coordinating product demand and supply.

USE - For electronic procurement of Phamaceutical supplies by pharmacist or hospitals over the Internet.

ADVANTAGE - The system assigns a reference to a particular product allowing orders to be placed using two different names or descriptions e.g. the brand name and the generic name, thus better **matching** of **order** requirements to supplier **stock** is possible.

pp; 30 DwgNo 0/1

Title Terms: PRODUCT; SUPPLY; NETWORK; PRODUCT; COMPUTER; NETWORK; HANDLE; ORDER; PLACE

Derwent Class: S05; T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

11/5/6 (Item 3 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014469759 **Image available**
WPI Acc No: 2002-290462/200233

Securites trading system and method thereof for direct dealings in security

Patent Assignee: KOREA SECURITIES COMPUTER CORP (KOSE-N)

Inventor: HWANG G I

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week

Bode Akintola 07-Apr-03

Priority Applications (No Type Date): KR 200025859 A 20000515 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

KR 2001104584 A 1 G06F-017/60

Abstract (Basic): KR 2001104584 A

NOVELTY - A securites trading system and a method thereof for direct dealings in security is provided to automatically make a contract when trading conditions are matched, satisfy various demands of both $\ parties$, and enable the contract to be made by using various means.

DETAILED DESCRIPTION - An access server(20) judges whether investors are members, issues IDs when the investors are not members, and manages the members. The investors accessing to the access server input **order** particulars with respect to specific **stocks**. An order processing server(30) informs that the inputted **order** particulars and IDs are received. When the particulars are **matched** with contract conditions, an automatic transaction processing unit(41) automatically makes a transaction. If the particulars are not matched with the contract conditions, a negotiation processing unit(42) investigates partners, carry on a negotiation between **parties**, and helps a transaction to be accomplished. An information processing server(50) transfers the transaction data to a payment company, and informs of the transaction result.

pp; 1 DwgNo 1/10

Title Terms: TRADE; SYSTEM; METHOD; DIRECT; SECURE

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

11/5/7 (Item 4 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014351191 **Image available** WPI Acc No: 2002-171894/200222

XRPX Acc No: N02-130655

Investment portfolio management by enabling real time viewing of lending

securities intermediate values during pending transaction

Patent Assignee: STRAIGHTTHROUGH.COM (STRA-N); GRAUER F L A (GRAU-I);

WHERRY C J (WHER-I); STRAIGHTTHROUGH INC (STRA-N) Inventor: GRAUER F L A; WHERRY C J; WHERRY J C Number of Countries: 096 Number of Patents: 003

Patent Family:

Patent No Kind Date Applicat No Kind Date Week WO 200207041 A2 20020124 WO 2001US21997 A 20010711 200222 B US 20020038273 A1 20020328 US 2000218105 A 20010710 US 2001903051 A 20010710

AU 200171994 A 20020130 AU 200171994 A 20010711 200236

Priority Applications (No Type Date): US 2001903051 A 20010710; US 2000218105 P 20000713

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes WO 200207041 A2 E 50 G06F-017/60

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN

IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW US 20020038273 A1 G06F-017/60 Provisional application US 2000218105

AU 200171994 A G06F-017/60 Based on patent WO 200207041

Abstract (Basic): WO 200207041 A2

NOVELTY - Method consists in accessing investment tools, communicating data among them using a common central interface, performing real-time electronic crossing transactions by users indicating willingness to match offsetting orders and real-time monitoring of the tools functions, with an intermediate function value available for review during a pending transaction. A report is presented with tools data in a uniform format. The tools are portfolio analytic and accounting tools, risk management tools, research data tools etc. and the functions are lending securities.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) A system for managing investment portfolios.
- (2) An investment portfolio management computer program.

USE - Method is for managing an investment portfolio.

ADVANTAGE - Method facilitates user selection of alternate investment tools.

DESCRIPTION OF DRAWING(S) - The figure shows a system for integrating investment tools illustrating a hub and spoke design. pp; 50 DwgNo 2/16

Title Terms: INVESTMENT; PORTFOLIO; MANAGEMENT; ENABLE; REAL; TIME; VIEW; LENDING; SECURE; INTERMEDIATE; VALUE; PENDING; TRANSACTION

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

11/5/8 (Item 5 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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014309346 **Image available**

WPI Acc No: 2002-130049/200217

Related WPI Acc No: 2001-514823; 2002-105670; 2002-205267

XRPX Acc No: N02-098094

Securities trade processing and managing system determines match of block level trade execution information and trade order information correlate within set of predefined parameters

Patent Assignee: ADDIS J C (ADDI-I); FOSTER G S (FOST-I); LURO A (LURO-I);

SNOW M (SNOW-I)

Inventor: ADDIS J C; FOSTER G S; LURO A; SNOW M
Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
US 20020004777 Al 20020110 US 2000504803 A 20000216 200217 B
US 2001931123 A 20010816

Priority Applications (No Type Date): US 2001931123 A 20010816; US 2000504803 A 20000216

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
US 20020004777 Al 13 G06F-017/60 CIP of application US 2000504803

Abstract (Basic): US 20020004777 A1

NOVELTY - The block level trade execution information and the block level trade order information are determined based on trade execution information and trade order information of two parties, respectively. If the block level trade execution information and the block level trade order information correlate within set of predefined acceptable trade parameters, a match is determined.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for securities trade processing and management method.

USE - For processing and managing securities trade .

ADVANTAGE - Reduces amount of information required to be input by the **parties** . Reduces the time required for settlement and number of human interactions in settlement process. Permits the **parties** to define settlement standards to automate and thereby speeds trade settlements. Permits all **parties** to a trade to view the status of the trade in real-time.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of system for facilitating the processing and settlement of $\ensuremath{\mathsf{securities}}$ trade .

pp; 13 DwgNo 1/5

Title Terms: SECURE; TRADE; PROCESS; MANAGE; SYSTEM; DETERMINE; MATCH; BLOCK; LEVEL; TRADE; EXECUTE; INFORMATION; TRADE; ORDER; INFORMATION; CORRELATE; SET; PREDEFINED; PARAMETER

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

11/5/9 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX

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014037164 **Image available**
WPI Acc No: 2001-521377/200157

XRPX Acc No: N01-386296

Conditional order transaction network, includes controller computer which matches or compares the algorithmic buy/sell orders with the sell/buy orders via external multiple data sources

Patent Assignee: BALCARCE P V (BALC-I); ELDRED M J (ELDR-I); NIEBOER R S (NIEB-I); ZHIDOV I N (ZHID-I); FIFTH MARKETING INC (FIFT-N); 5TH MARKET INC (FIFT-N)

Inventor: NIEBOER R S; BALCARCE P V; ELDRED M J; ZHIDOV I N

Number of Countries: 028 Number of Patents: 006

Patent Family:

Patent No Kind Date Applicat No Kind Date Week WO 200108065 A1 20010201 WO 2000US19567 A 20000724 200157 B AU 200066066 A 20010213 AU 200066066 Α 20000724 200157 А A1 20020529 EP 2000953652 EP 1208510 20000724 200243 WO 2000US19567 A 20000724 US 6418419 B1 20020709 US 99359686 A CN 1375089 A 20021016 CN 2000810801 A 19990723 200253 20000724 200311 20030212 WO 2000US19567 A JP 2003505794 W 20000724 200321 JP 2001513081 A 20000724

Priority Applications (No Type Date): US 99359686 A 19990723 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes WO 200108065 Al E 60 G06F-017/60

Designated States (National): AU BR CN JP KR MX RU US ZA

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU

MC NL PT SE

AU 200066066 A G06F-017/60 Based on patent WO 200108065

EP 1208510 A1 E G06F-017/60 Based on patent WO 200108065

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI

LU MC NL PT SE

US 6418419 B1 G06F-017/60 CN 1375089 A G06F-017/60

JP 2003505794 W 82 G06F-017/60 Based on patent WO 200108065

Abstract (Basic): WO 200108065 A1

NOVELTY - Orders for a security instrument are entered into a variable number of trade terminals. The orders are entered in the form of transaction algorithms. A controller computer coupled to each of the terminals receives each algorithm with its corresponding constraints and at least one external price feeds depicting the prices of various securities and contracts from external multiple exchanges.

DETAILED DESCRIPTION - The controller computer has a function which matches the algorithmic buy orders with the sell orders in accordance with the constraints and conditions. The computer then matches or compares the algorithmic buy/sell orders with the sell/buy orders via external multiple data sources. INDEPENDENT CLAIMS are also included for the following:

- (a) a trader workstation;
- (b) a computer program

USE - For trading securities over a communications network. ADVANTAGE - Efficiently transacts conditional buy and sell orders for items of commerce by multiple traders in real-time. Matches or negotiates conditional buy and sell orders of the items reduced transaction costs to the traders. Provides public access to the person skilled in security transactions for trading conditional securities in real-time without the assistance of traditional broker networks. Reduces bandwidth demands when there are multiple orders or orderbooks.

DESCRIPTION OF DRAWING(S) - The figure shows the diagrammatic illustration of the conditional order transaction system.

pp; 60 DwgNo 1/17

Title Terms: CONDITION; ORDER; TRANSACTION; NETWORK; CONTROL; COMPUTER; MATCH; COMPARE; ALGORITHM; BUY; SELL; ORDER; SELL; BUY; ORDER; EXTERNAL; MULTIPLE; DATA; SOURCE

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

11/5/10 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013991698

WPI Acc No: 2001-475913/200151

XRPX Acc No: N01-352253

Method of executing transaction in computerized system by enabling order-receiving parties to designate other parties for re-brokering

Patent Assignee: XBOND CORP (XBON-N)

Inventor: HUGHES W

Number of Countries: 092 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week 20010705 WO 2000US35492 A WO 200148668 A1 20001228 200151 B A AU 200127415 20010709 AU 200127415 Α 20001228 200164

Priority Applications (No Type Date): US 2000706678 A 20001106; US 99173581
 P 19991229; US 2000178049 P 20000124; US 2000201599 P 20000503
Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes WO 200148668 Al E 109 G06F-017/60

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR TE IT KE LS LU MC MW MZ NI OA PT SD SE SI SZ TR TZ UC ZW

IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
AU 200127415 A G06F-017/60 Based on patent WO 200148668

Abstract (Basic): WO 200148668 A1

NOVELTY - Method consists in allowing the **parties** receiving the order to designate other **parties** by allowing them to communicate **offers** or **bids** for financial instruments, determining whether a **match** occurs on **orders** from two **parties** and executing the transaction. The first ordering **party** can select whether the order is a live executable order or a subject order. A list of **parties** is stored in memory using a set of rules.

DETAILED DESCRIPTION - There is an INDEPENDENT CLAIM for a computerized trading system.

USE - Method is for anonymous trading over e.g. the Internet through systematic use of broker - dealers and is for trading bonds, currencies, fixed income securities etc.

ADVANTAGE - Method enhances the roles of broker - dealers in securities trading systems, supports anonymous trading and automatically rebrokers orders by broker - dealers.

pp; 109 DwgNo 0/19

Title Terms: METHOD; EXECUTE; TRANSACTION; SYSTEM; ENABLE; ORDER; RECEIVE; PARTY; DESIGNATED; PARTY

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

11/5/11 (Item 8 from file: 350)

DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv.

013980339 **Image available**
WPI Acc No: 2001-464553/200150

XRPX Acc No: N01-344548

Automated order and share matching method in equity trading system, involves determining price of cross transaction, if any market order matches with one indication of interest to purchase or sell desired stock

Patent Assignee: SALOMON SMITH BARNEY INC (SALO-N)

Inventor: HARTS W R; MOORE R E

Number of Countries: 091 Number of Patents: 003

Patent Family:

Patent No Kind Date Applicat No Kind Date Week Al 20010118 WO 2000US18673 A 20000707 WO 200104817 200150 B 20010130 AU 200062072 A AU 200062072 Α 20000707 200150 A1 20020529 EP 2000948597 A EP 1208508 20000707 200243 WO 2000US18673 A 20000707

Priority Applications (No Type Date): US 99352303 A 19990712; US 99143258 P

19990709

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200104817 A1 E 26 G06F-017/60

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ ÜG ZW

AU 200062072 A G06F-017/60 Based on patent WO 200104817

EP 1208508 A1 E G06F-017/60 Based on patent WO 200104817

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI .

Abstract (Basic): WO 200104817 A1

NOVELTY - Received market orders are checked for contratransaction of desired stock of specific entity. If matching of any of the market orders for desired stock of particular entity is evaluated with at least one indication of interest received to purchase or sell the desired stock based on preset criteria, a price for created cross transaction is determined.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Automated system for $\mbox{matching}$ $\mbox{customer}$ equity buy and sell \mbox{orders} ;
 - (b) Computerized system to manage working orders;
 - (c) Computerized method to manage working orders

USE - For matching orders to buy and sell stock shares in equity trading system.

ADVANTAGE - Provides a transaction price which splits spread preferably equal between buying and selling client, hence provides price improvement for clients and eliminates exchange fees and broker communications associated with trade on floor of exchange. Enables tracking national best price over several national exchanges, to determine transaction price for traders. Keeps track of whether a large market order is fulfilled during a trading day and automatically generates an indication or signal, to execute portion of transaction on exchange floor at preselected times, when insufficient number of matching transactions are made available. Facilitates interaction of retail and institutional client order flow and provides price improvement. Allows a brokerage house to capitalize on its large order flow of retail and institutional orders.

DESCRIPTION OF DRAWING(S) - The figure shows schematic representation of equity trading system.

pp; 26 DwgNo 1/3

Title Terms: AUTOMATIC; ORDER; SHARE; MATCH; METHOD; TRADE; SYSTEM; DETERMINE; PRICE; CROSS; TRANSACTION; MARKET; ORDER; MATCH; ONE; INDICATE

; INTEREST; PURCHASE; SELL; STOCK

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

11/5/12 (Item 9 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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013974796 **Image available**
WPI Acc No: 2001-459009/200150

XRPX Acc No: N01-340325

Anonymous trading method of securities over crossing network, involves generating synthetic profile and matching it with contra side profile for facilitating a trade

Patent Assignee: OPTIMARK INC (OPTI-N)

Inventor: ATCHISON D; FABISZAK C M; LUPIEN W A; RICHARD J T; SMIGEL M

Number of Countries: 026 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week EP 1118953 A2 20010725 EP 2001200200 A 20010119 200150 B

Priority Applications (No Type Date): US 2000489769 A 20000121 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 1118953 A2 E 70 G06F-017/60

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): EP 1118953 A2

NOVELTY - Buy and sell orders in the form of profiles including one price and quantity coordinate that associates a preference value, are received for a particular security. A synthetic profile generated from available quantities in the profiles at each price and the preference value, is matched with a contra side profile for facilitating a trade.

USE - For anonymous trading of securities including assets such as futures, derivatives, options, bonds, currencies, commodities, insurance contracts, etc., over anonymous and confidential crossing network that matches buy and sell orders of traders or institutional investors. Also for trading media time, airline tickets, concert tickets, electronic components or any contract for goods or services.

ADVANTAGE - Allows **traders** to input satisfaction density profile and maximum size limit which characterizes **trader** 's degree of satisfaction to trade at any and all prices and sizes, and that **matches orders**, hence each **trader** is assured that the overall outcome of process in terms of average size and price, has maximized the mutual satisfaction of all **traders**.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of anonymous matching system.

pp; 70 DwgNo 1/25

Title Terms: TRADE; METHOD; SECURE; CROSS; NETWORK; GENERATE; SYNTHETIC; PROFILE; MATCH; CONTRA; SIDE; PROFILE; FACILITATE; TRADE

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

11/5/13 (Item 10 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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013948202 **Image available**
WPI Acc No: 2001-432416/200146
XRPX Acc No: N01-320476

Internet oriented transaction method involves executing trade defined by buying-selling order indications which are invisible to other market participants

Patent Assignee: SHAW & CO INC D E (SHAW-N)

Inventor: GIANAKOUROS N P; SHAW D E

Number of Countries: 092 Number of Patents: 002

Patent Family: Patent No Kind Date Applicat No Kind Date WO 200122339 A2 20010329 WO 2000US26299 A 20000925 200146 B AU 200076130 A 20010424 AU 200076130 A 20000925 200147 Priority Applications (No Type Date): US 2000565444 A 20000505; US 99155643 P 19990924 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes WO 200122339 A2 E 97 G06F-017/60 Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW AU 200076130 A G06F-017/60 Based on patent WO 200122339 Abstract (Basic): WO 200122339 A2 NOVELTY - Indications for buying and selling security orders at non-discrete prices found using national best bid offer (NBBO) data, submitted by retail customers (210), are routed to routing system (230) through Internet (220). A request is sent by routers (120-1) to execute customer - customer trade by central order match box (COMB) (110) by matching buying and selling orders , invisible to other market participants. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (a) Continuous securities buying and selling program; (b) Continuous securities transaction system; (c) Dynamic order router for continuous interaction of retail orders; (d) Crossing network for continuous interaction; (e) Computer system USE - For continuous interaction of marketable retail security orders between traders and investors, through Internet in pension
fund and mutual fund issuing companies. ADVANTAGE - Facilitates automated, continuous, fully electronic, anonymous, non-display based interaction between professional market participants and retail marketable order without waiting for set times. Provides the financial securities to clients at predetermined non-discrete prices. DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of system for buying and selling instruments through network. COMB (110) Router (120-1) Customer (210) Internet (220) Routing system (230)

pp; 97 DwgNo 2/5

Title Terms: ORIENT; TRANSACTION; METHOD; EXECUTE; TRADE; DEFINE; BUY; SELL; ORDER; INDICATE; INVISIBLE; MARKET; PARTICIPATING

Derwent Class: T01; T05

International Patent Class (Main): G06F-017/60

File Segment: EPI

11/5/14 (Item 11 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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013923537 **Image available**
WPI Acc No: 2001-407750/200143

XRPX Acc No: N01-301704

Computer based bartering system for exchanging and selling stocks and other items, includes matching engine which matches barterer's barter order with selected posted order for effectuating barter transaction

Patent Assignee: HIMMELSTEIN R B (HIMM-I)

Inventor: HIMMELSTEIN R B

Number of Countries: 093 Number of Patents: 004

Patent Family:

Patent No Kind Date Applicat No Kind Date WO 2000US21018 A WO 200111518 20010215 20000802 A2 200143 B AU 200065097 20010305 AU 200065097 200143 20000802 Α Α US 20020032643 A1 20020314 US 99147243 19990805 Ρ 200222 US 99153142 P 19990909 US 99161318 Ρ 19991025 US 99454035 Α 19991203 US 2001921610 20010803 Α US 20020038278 A1 20020328 US 99147243 Ρ 19990805 US 99153142 Ρ 19990909 US 99161318 Ρ 19991025 US 99454035 Α 19991203 US 2001921534 Α 20010803

Priority Applications (No Type Date): US 99454035 A 19991203; US 99147243 P 19990805; US 99153142 P 19990909; US 99161318 P 19991025; US 2001921610 A 20010803; US 2001921534 A 20010803

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes WO 200111518 A2 E 86 G06F-017/60

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

AU 200065097 A G06F-017/60 Based on patent WO 200111518

US 20020032643 A1 G06F-017/60 Provisional application US 99147243

Provisional application US 99153142 Provisional application US 99161318 Div ex application US 99454035

US 20020038278 A1 G06F-017/60 Provisional application US 99147243

Provisional application US 99153142 Provisional application US 99161318 Div ex application US 99454035

Abstract (Basic): WO 200111518 A2

NOVELTY - The system (100) designates barter value of primary class items to be bartered and the link (104) transfers the orders to database (116). The designating unit designates secondary class items and items are displayed via Internet connectivity (110) after designating barter value. A matching engine (118) matches the barterer's barter order with the selected posted order for effectuating barter transaction.

DETAILED DESCRIPTION - Barter ordering module creates the barter orders and designates primary class of items to be bartered. An INDEPENDENT CLAIM is also included for method of bartering.

USE - For implementing barters between several parties with

classes of item, for exchanging or selling stock, cash, dollars, CD's, bonds , notes, commodities, annuities, government bonds , etc. ADVANTAGE - Actuates a tax free exchange or tax deferred exchange for swapping barter items. DESCRIPTION OF DRAWING(S) - The figure shows the bartering system. System (100) Link (104) Internet connectivity (110) Database (116) Matching engine (118) pp; 86 DwgNo 1/9 Title Terms: COMPUTER; BASED; SYSTEM; EXCHANGE; SELL; STOCK; ITEM; MATCH; ENGINE; MATCH; ORDER; SELECT; POST; ORDER; TRANSACTION Derwent Class: T01 International Patent Class (Main): G06F-017/60 File Segment: EPI 11/5/15 (Item 12 from file: 350) DIALOG(R) File 350: Derwent WPIX (c) 2003 Thomson Derwent. All rts. reserv. 013896208 **Image available** WPI Acc No: 2001-380421/200140 Related WPI Acc No: 2000-423092; 2001-450390 XRPX Acc No: N01-278882 Computer based secondary market shares transaction method for investment companies, involves scanning database for matching sell and buy orders and execution trade upon match between buy and sell order Patent Assignee: SHKEDY G (SHKE-I) Inventor: SHKEDY G Number of Countries: 001 Number of Patents: 001 Patent Family: Patent No Kind Date Applicat No Kind Date Week US 6236972 B1 20010522 US 98203843 Α 19981202 200140 B US 98217663 Α 19981221 Priority Applications (No Type Date): US 98217663 A 19981221; US 98203843 A 19981202 Patent Details: Patent No Kind Lan Pg Main IPC Filing Notes US 6236972 В1 31 G06F-017/60 CIP of application US 98203843 Abstract (Basic): US 6236972 B1 NOVELTY - Sell order and buy order are received at central controller. Sell tracking identification corresponding to sell order and seller , and buy tracking identification corresponding to buy order and buyer are stored in a database. The database is scanned for matching sell and buy orders . Trade is executed upon a match between sell and buy $\ \ \,$ order and confirmation of transaction is forwarded to $\ \ \,$ seller and $\ \ \,$ buyer . DETAILED DESCRIPTION - Sell order to sell shares of an investment company are received at central controller having a database storage. Sell tracking identification assigned to sell order and seller are stored in the database. Buy order is received at central controller. Buy tracking identification assigned to buy order and buyer are

stored in the database. The database is scanned for matching sell and buy orders . Trade is executed upon match between sell and buy orders . Transaction confirmation is forwarded to buyers and sellers through transfer <code>agent</code> . An <code>INDEPENDENT</code> CLAIM is also included for controller having stored programs for facilitating transaction of

shares.

USE - For facilitating secondary trading of shares of an investment company such as open ended mutual fund or a hedge fund.

ADVANTAGE - Provides individuals with the ability to minimize the transaction fees they pay to trade mutual fund shares. Offers the capability for individual sellers to sell their shares at a higher price than they could redeem them and for buyers to buy those shares at a discount.

 $\label{eq:decomposition} \mbox{DESCRIPTION OF DRAWING(S) - The figure shows the electronic network including a central controller.}$

pp; 31 DwgNo 1/15

Title Terms: COMPUTER; BASED; SECONDARY; MARKET; SHARE; TRANSACTION; METHOD; INVESTMENT; COMPANY; SCAN; DATABASE; MATCH; SELL; BUY; ORDER; EXECUTE; TRADE; MATCH; BUY; SELL; ORDER

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

11/5/16 (Item 13 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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013380759 **Image available**
WPI Acc No: 2000-552697/200051

XRPX Acc No: N00-409125

Merchandise management apparatus for managing goods is supermarket, selects variety of goods with codes matching with codes of inventory goods, based on demand order from buyer

Patent Assignee: NIPPON STEEL CORP (YAWA)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind Date Week
JP 2000215233 A 20000804 JP 9914624 A 19990122 200051 B

Priority Applications (No Type Date): JP 9914624 A 19990122

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

JP 2000215233 A 15 G06F-017/60

Abstract (Basic): JP 2000215233 A

NOVELTY - Information about inventory goods with specific codes is stored in a memory. The goods with specific codes are matched with inventory goods with different specific codes indicating unit price of goods. A processor (320) selects variety of goods with codes matching with codes of inventory goods, based on demand order from buyer side.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: $\hfill \hfill \hfil$

- (a) merchandise management method;
- (b) recording medium for storing merchandise management program USE - For managing goods such as vegetables, meat packing in supermarket, aeronautical navigation ticket and concert ticket.

ADVANTAGE - Since desired goods from order demand buyer side are automatically matched with goods beside seller, seller need not perform demand order management, inventory control by manual work. Since order demand from buyer side is compared with data in stock information memory, goods are easily supplied to buyer and efficient merchandise management is performed. Since remaining goods can be estimated quickly, inventory goods information is updated

easily. Since goods supply is decided beforehand, merchandise management is performed easily and efficiently.

DESCRIPTION OF DRAWING(S) - The figure shows block diagram of component of merchandise management system.

Processor (320) pp; 15 DwgNo 1/8

Title Terms: MERCHANDISE; MANAGEMENT; APPARATUS; MANAGE; GOODS; SUPERMARKET; SELECT; VARIETY; GOODS; CODE; MATCH; CODE; INVENTORY; GOODS; BASED;

DEMAND; ORDER; BUY Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

11/5/17 (Item 14 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013120642 **Image available**
WPI Acc No: 2000-292513/200025

Related WPI Acc No: 2000-224820; 2000-292512

XRPX Acc No: N00-219381

Method of protecting against manipulation data processing system for trading stocks by matching buy and sell orders by assigning identifier to each user so as to identify when one or more users are acting to manipulate stock prices

Patent Assignee: MARKETXT INC (MARK-N)

Inventor: CHOE E; HERMUS M W; LEONG S; SATOW M
Number of Countries: 087 Number of Patents: 002

Patent Family:

Patent No Kind Date Applicat No Kind Date Week WO 200011588 A1 20000302 WO 99US18768 A 19990820 200025 B AU 9957775 A 20000314 AU 9957775 A 19990820 200031

Priority Applications (No Type Date): US 9897414 P 19980821 Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200011588 A1 E 31 G06F-017/60

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR

IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW
AU 9957775 A G06F-017/60 Based on patent WO 200011588

Abstract (Basic): WO 200011588 A1

NOVELTY - Each time a trade is effected the system assigns identifiers to the two **parties**. **Users** (10) of the system and the trades they make are monitored to detect manipulation using a matching engine (32), e.g. round robin sales and purchases, and when manipulation is detected no further trades are made for the **users** involved due to the action of an anti-manipulation component (38).

DETAILED DESCRIPTION - The monitoring is performed automatically by software, preferably written in Java so as to be portable across many operating systems. INDEPENDENT CLAIMS are included for

- (a) a computer readable medium carrying instructions to cause a computer to protect a **stock trading** system against manipulation
- (b) and an anti-manipulation system for a data processing system for ${\it trading}$ ${\it stocks}$.

```
ADVANTAGE - Increased security and automatic protection against
    market manipulation.
        DESCRIPTION OF DRAWING(S) - The drawing illustrates a block diagram
    of a real time computerized trading system with an anti-manipulation
    component according to the present invention.
         user (10)
        Internet (16)
        private network (26)
        matching engine (32)
        anti-manipulation component (38)
        pp; 31 DwgNo 1/8
Title Terms: METHOD; PROTECT; MANIPULATE; DATA; PROCESS; SYSTEM; TRADE;
  STOCK; MATCH; BUY; SELL; ORDER; ASSIGN; IDENTIFY; USER; SO; IDENTIFY;
  ONE; MORE; USER; ACT; MANIPULATE; STOCK; PRICE
Derwent Class: T01
International Patent Class (Main): G06F-017/60
File Segment: EPI
 11/5/18
             (Item 15 from file: 350)
DIALOG(R) File 350: Derwent WPIX
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013120641
            **Image available**
WPI Acc No: 2000-292512/200025
Related WPI Acc No: 2000-224820; 2000-292513
XRPX Acc No: N00-219380
 Automated method of trading stocks and shares receives out of hours
  orders from non-institutional traders and matches buy and sell
  orders to effect trades
Patent Assignee: MARKETXT INC (MARK-N)
Inventor: CHOE E; HERMUS M W; LEONG S; SATOW M
Number of Countries: 088 Number of Patents: 003
Patent Family:
Patent No
             Kind
                    Date
                            Applicat No
                                           Kind
                                                  Date
                                                           Week
WO 200011587 A1 20000302 WO 99US18767
                                           Α
                                                19990820
                                                          200025 B
AU 9956775
                  20000314 AU 9956775
             Α
                                            Α
                                                19990820
                                                          200031
EP 1105824
             A1 20010613 EP 99943739
                                            Α
                                                19990820
                                                          200134
                            WO 99US18767
                                          Α
                                                19990820
Priority Applications (No Type Date): US 9897414 P 19980821
Patent Details:
Patent No Kind Lan Pg
                        Main IPC
                                    Filing Notes
WO 200011587 A1 E 33 G06F-017/60
   Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN
   CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
  KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG
   SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW
  Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
  IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW
AU 9956775
                     G06F-017/60
             Α
                                    Based on patent WO 200011587
EP 1105824
                     G06F-017/60
             A1 E
                                    Based on patent WO 200011587
   Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
  LI LT LU LV MC MK NL PT RO SE SI
Abstract (Basic): WO 200011587 A1
       NOVELTY - The system provides a service matching buy and sell
   orders using a matching engine (32) included in a trading system
    (28) and effecting trades out of normal stock exchange hours to
```

USE - In data processing systems for trading

stocks .

non-institutional traders . Orders are matched and if there is no match are stored for possible subsequent matching . Orders may be received from brokers (18) or via an Internet (16) or a private network (26).

DETAILED DESCRIPTION - It allows that trading information, including information about open unmatched trades, may be assembled and published. INDEPENDENT CLAIMS are included for a computer readable medium carrying instructions to cause a data processing system to trade in stocks .

USE - In automated stock trading systems.

ADVANTAGE - Provides an out of hours market for private investors. DESCRIPTION OF DRAWING(S) - The drawing illustrates a block diagram of a real-time computerized trading system in accordance with the present invention.

pp; 33 DwgNo 1/6

Title Terms: AUTOMATIC; METHOD; TRADE; STOCK; SHARE; RECEIVE; HOUR; ORDER;

NON; MATCH; BUY; SELL; ORDER; EFFECT

Derwent Class: T01

International Patent Class (Main): G06F-017/60

File Segment: EPI

11/5/19 (Item 16 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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Image available WPI Acc No: 2000-205131/200018

XRPX Acc No: N00-152680

Electronic information transmitting system for broker in security transaction

Patent Assignee: CROSSMAR INC (CROS-N)

Inventor: FITZPATRICK R; HAWKINS J G; JACOBS D M Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No Kind Date Applicat No Kind US 6029146 A 20000222 US 96700836 Α 19960821 200018 B

Priority Applications (No Type Date): US 96700836 A 19960821

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 6029146 Α 37 G06F-017/60

Abstract (Basic): US 6029146 A

NOVELTY - A processor automatically generates two consecutive notification messages in a secure financial network using the data corresponding to investor's order received by a data communication device, confirmation messages and stored standing delivery instructions.

DETAILED DESCRIPTION - The data communication device receives the order message e.g. buying or selling order, from first broker and forwards the order to another broker . The communication device forwards the notification message to the respective clearing agents for settling the transactions within the financial network.

An INDEPENDENT CLAIM is also included for the trading method in transaction . securities

USE - For brokers in security transaction.

ADVANTAGE - Has improved system that automatically match an investor's security order with executing broker 's match confirmation and automatically generates a settlement instruction to clearing agents on trade data by allowing clearing agent to monitor investor's order. Increases accuracy, reduces cost and inherent financial risk, and increases rate of settlement. Allows financial network to receive and process messages in reliably and efficiently. DESCRIPTION OF DRAWING(S) - The figure shows the explanatory diagram of the transmitting system.

pp; 37 DwgNo 5/23

Title Terms: ELECTRONIC; INFORMATION; TRANSMIT; SYSTEM; SECURE; TRANSACTION

Derwent Class: T01; T05

International Patent Class (Main): G06F-017/60

File Segment: EPI

(Item 17 from file: 350) 11/5/20

DIALOG(R) File 350: Derwent WPIX

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012264762 **Image available** WPI Acc No: 1999-070868/199906

XRPX Acc No: N99-051772

Confirmation and settlement for financial transaction matching - includes initiating of communication links and selecting predetermined financial transaction and matching of pairs of transactions from 2 users

Patent Assignee: CROSSMAR INC (CROS-N)

Inventor: FITZPATRICK R; HAWKINS J G; JACOBS D M Number of Countries: 083 Number of Patents: 004

Patent Family:

Patent No		Kind	Date	Ap	plicat No	Kind	Date	Week	
	WO 9858333	A1	19981223	WO	98US12232	Α	19980616	199906	В
	AU 9881419	Α	19990104	ΑU	9881419	Α	19980616	199921	
	EP 992015	A1	20000412	EP	98931248	A	19980616	200023	
	•			WO	98US12232	Α	19980616		
	US 6247000	В1	20010612	US	96700836	A	19960821	200135	
				US	9749851	Α	19970617		
				US	9897695	А	19980616		

Priority Applications (No Type Date): US 9749851 P 19970617; US 96700836 A 19960821; US 9897695 A 19980616

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes WO 9858333 A1 E 100 G06F-017/60

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9881419 Α

Based on patent WO 9858333 EP 992015 A1 E G06F-017/60 Based on patent WO 9858333 Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

US 6247000 В1 G06F-017/60

CIP of application US 96700836 Provisional application US 9749851 CIP of patent US 6029146

Abstract (Basic): WO 9858333 A

trader (30) uses a dealing system (31) to prepare, for A client example, a buy order for securities and information regarding this order is transmitted to a file (32) for use for matching purposes. This file is used by a locally run Crossmar matching services (CMS)

(33) to transmit confirmation (34) to a CMS server (35) and to receive a **matched** confirmation report (34a) from the server. **Orders** and executions may also be performed outside the system over telephones (45).

A trade would be consummated through a host (36), a settlement system (37), a clearing **agent** (38) and physical delivery-depository (39). After consummation of the trade, the matched confirmation reports (34,34a) would be sent to the **client** trader and to the counterparty **trader** (40) respectively.

USE - Automatic matching financial transactions electronically traded among user groups

ADVANTAGE - Secure communication between **brokers** and compatibility to standard message format Dwg.2a/30

Title Terms: CONFIRM; SETTLE; FINANCIAL; TRANSACTION; MATCH; INITIATE; COMMUNICATE; LINK; SELECT; PREDETERMINED; FINANCIAL; TRANSACTION; MATCH; PAIR; TRANSACTION; USER

Derwent Class: T01; T05; W01

International Patent Class (Main): G06F-017/60

File Segment: EPI

11/5/21 (Item 18 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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011000884 **Image available**
WPI Acc No: 1996-497833/199649

XRPX Acc No: N96-419772

Computer implemented crossing network which matches buy and sell orders for trading instruments - receives satisfaction density profile for buying or selling from trader terminal and matches pairs of profiles with each other

Patent Assignee: OPTIMARK TECHNOLOGIES INC (OPTI-N); OPTIMARK TECHNOLOGY CO (OPTI-N); OPTIMA TECHNOLOGIES INC (OPTI-N); MJT HOLDINGS INC (MJTH-N)

Inventor: LUPIEN W A; RICKARD J T; RICHARD J T Number of Countries: 074 Number of Patents: 020

Patent Family:

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P	atent No	Kind	Date	Apj	plicat No	Kind	Date	Week	
W	0 9634357	A1	19961031	WO	96US7265	Α	19960426	199649	В
Α	U 9659232	Α	19961118	AU	9659232	Α	19960426	199710	
Z	A 9602454	A	19970430	zA	962454	A	19960327	199723	
U	S 5689652	A	19971118	US	95430212	A	19950427	199801	
Ε	P 823095	A1	19980211	ΕP	96916504	Α	19960426	199811	
				WO	96US7265	Α	19960426		
N	0 9704926	Α	19971223	WO	96US7265	A	19960426	199811	
				NO	974926	A	19971024		
T	W 326088	A	19980201	TW	96103237	À	19960319	199835	
U	S 5845266	Α	19981201	US	95571328	Α	19951212	199904	
С	Z 9703408	А3	19990113	WO	96US7265	Α	19960426	199908	
				CZ	973408	Α	19960426		
N	Z 309241	Α	19990329	ΝZ	309241	Α	19960426	199918	
				WO	96US7265	Α	19960426		
J	P 11504455	W	19990420	JP	96532813	Α	19960426	199926	
				WO	96US7265	Α	19960426		
U	S 5950177	Α	19990907	US	95430212	Α	19950427	199943	
				US	97892598	Α	19970715		
В	R 9608244	Α	19990824	BR	968244	Α	19960426	200001	
				WO	96US7265	Α	19960426		
Ι	L 117424	Α	19990922	ΙĻ	117424	Α	19960310	200002	

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US 6012046
                   20000104 US 95571328
                                             Д
                                                 19951212
                                                           200008
                             US 97951304
                                             Α
                                                 19971016
AU 714321
               В
                   20000106 AU 9659232
                                             Α
                                                 19960426
                                                           200013
KR 99008095
               Α
                   19990125 WO 96US7265
                                             Α
                                                 19960426
                                                           200014
                             KR 97707619
                                             Α
                                                19971027
US 6098051
                   20000801 US 95571328
                                            Α
                                                19951212
               Α
                                                           200039
                             WO 96US7265
                                             Α
                                                19960426
                             US 97945074
                                             A 19971021
RU 2161819
               C2
                   20010110
                            WO 96US7265
                                             A 19960426 200120
                             RU 97120724
                                                 19960426
                                             A
CN 1187891
                   19980715 CN 96194809
                                                 19960426 200267
               Α
Priority Applications (No Type Date): US 95571328 A 19951212; US 95430212 A
  19950427; US 97892598 A 19970715; US 97951304 A 19971016
Cited Patents: EP 512702; GB 2275796; US 5283731; WO 9605563
Patent Details:
Patent No Kind Lan Pq
                        Main IPC
                                     Filing Notes
WO 9634357
             A1 E 88 G06F-017/60
   Designated States (National): AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE
   DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN
   MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN
   Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GR IE IT KE
   LS LU MC MW NL OA PT SD SE SZ UG
AU 9659232
             Α
                                     Based on patent WO 9634357
ZA 9602454
                    85 G06F-000/00
             Α
US 5689652
             Α
                    26 G06F-015/00
EP 823095
             Al E
                                     Based on patent WO 9634357
   Designated States (Regional): AL AT BE CH. DE DK ES FI FR GB GR IE IT LI
  LT LU LV MC NL PT SE SI
TW 326088
                      G06F-015/21
             Ά
CZ 9703408
             А3
                                    Based on patent WO 9634357
NZ 309241
             Α
                                    Based on patent WO 9634357
JP 11504455
             W
                    80
                                    Based on patent WO 9634357
US 5950177
             Α
                                    Cont of application US 95430212
                                    Cont of patent US 5689652
BR 9608244
                                    Based on patent WO 9634357
             Α
US 6012046
                                    Cont of application US 95571328
             Α
AU 714321
             В
                                    Previous Publ. patent AU 9659232
                                    Based on patent WO 9634357
KR 99008095
                                    Based on patent WO 9634357
             Α
US 6098051
                                    Cont of application US 95571328
                      G06F-017/60
             Α
                                    Cont of patent US 5845266
                                    Based on patent WO 9634357
RU 2161819
             C2
                      G06F-017/60
                                    Based on patent WO 9634357
CN 1187891
                      G06F-017/60
             Α
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Abstract (Basic): WO 9634357 A

The network includes several **trader** terminals for entering orders in the form of a satisfaction density profile representing price and quantity combinations. A matching controller computer is coupled to each of the **trader** terminals. It receives the profiles and stores them as files. The controller pairs **matching** profiles of buy and sell **orders**. A mutual satisfaction function is then calculated based on several quantity and price combinations. The combinations are then ranked according to the degree of mutual satisfaction. **Orders** are then **matched** within the ranking. The controller also selects between combinations which have the same ranking.

USE/ADVANTAGE - For dating service. For **trading** event tickets. For **trading securities**. Matches various factors. Improved mutual satisfaction.

Dwg.1/11

Title Terms: COMPUTER; IMPLEMENT; CROSS; NETWORK; MATCH; BUY; SELL; ORDER; TRADE; INSTRUMENT; RECEIVE; DENSITY; PROFILE; BUY; SELL; TERMINAL; MATCH; PAIR; PROFILE

Derwent Class: T01

International Patent Class (Main): G06F-000/00; G06F-015/00; G06F-015/21;

G06F-017/60

International Patent Class (Additional): G06F-015/40

File Segment: EPI

The NASDAQ and OptiMark Technologies have entered into an agreement which will allow participants in the all- electronic equities market to use matching system. The deal, which is subject OptiMark's automated order to SEC approval, calls for participating firms to make OptiMark's 3D platform accessible to NASDAQ member firms and investors by 3Q99. NASDAQ will integrate OptiMark's system with its own trading network . After the interface has been built, OptiMark will match buy and sell specific NASDAQ stocks every 90 seconds. Stocks will be matched based on a satisfaction profile, which allows participants to indicate their desire to trade a stock across a range of price and size levels. NASDAQ will also automatically send all best-priced orders to OptiMark for matching purposes. OptiMark's platform will then be linked to NASDAQ's limit order book, an electronic0 bulletin board that shows and matches orders to buy and sell stocks at customer -specified prices. Unlike NASDAQ electronic communications networks, OptiMark functions as a noncontinuous matching system, and is regulated as a facility of an exchange. It will therefore not compete for orders with NASDAQ members.

COMPANY NAME: OptiMark Technologies Inc (659363)

DESCRIPTORS: Online Stock Trading; Order Fulfillment; Securities

; Stock Market

REVISION DATE: 20020630

17/5/53 (Item 4 from file: 256)

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.

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00113288 DOCUMENT TYPE: Review

PRODUCT NAMES: Cisco LocalDirector (626821); Microsoft Windows NT (347973); Lotus Notes (550418); Netscape Enterprise Server (608904); CICS (205541

TITLE: Net Matches Parts, Orders

AUTHOR: Frook, John Evan

SOURCE: Information Week, p72(2) Oct 26, 1998

ISSN: 8750-6874

HOMEPAGE: http://www.informationweek.com

RECORD TYPE: Review

REVIEW TYPE: Product Analysis GRADE: Product Analysis, No Rating

Cisco Systems' Cisco LocalDirector, Microsoft's Microsoft Windows NT, Lotus Development's Lotus Notes, Netscape Communications' Netscape Enterprise Server , and IBM's CICS are used by Ingram Micro as part of a system that supports the computer product distributor's build-to-order channel assembly. Ingram, says CEO Jerre Stead, must be able to use technology, including e-commerce and the Internet , to lower costs for customers . Its channel assembly, or the process of gathering computer components from multiple makers and combining them to fill a customer 's order, is an expansion of one-to-one marketing on the Web . Customers use interactive Internet applications to select the features they need, instead of buying preconfigured products built by manufacturers. Ingram has to be able to link back-office functions, including those supporting inventory, supply chain, and purchasing, to demand, a task that requires real-time data. Therefore, Ingram is using front-end Internet applications to collapse production cycles and lower inventories. The Web site also increases customers ' choices, via applications accessible from Ingram's site or

available on a reseller's site. The applications allow salespersons and customers to compare products, obtain accurate prices, know what products are in stock, and send in an order. A dozen T1 lines support the channel, and LocalDirector provides load balancing. Windows NT-based Web servers support SQL databases, Notes, Netscape Enterprise, and CICS applications.

COMPANY NAME: Cisco Systems Inc (465828); Microsoft Corp (112127); Lotus Development Corp (254975); Netscape Communications Corp (592625); IBM Corp (351245)

DESCRIPTORS: CICS; Computer Equipment; Distributors; IBM PC & Compatibles; Internet Utilities; Intranets; Load Balancing; Notes/Domino; Order

Fulfillment; Windows NT/2000

REVISION DATE: 20021226

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Set
        Items
                Description
                SECURITIES OR BOND? ? OR FUNGIBLE() PROPERT? OR MUTUAL() FUN-
S1
      6377585
             D? ? OR STOCK? ?
                S1(3N)(SALE? OR TRANSACT? OR ORDER? OR TRADING OR TRADE? OR
S2
      1202112
              PURCHAS? OR BUY??? OR SELL???)
                MERCHANT? OR AGENT? OR TRADER? OR SELLER? OR PARTIES OR PA-
S3
      6796841
             RTY OR DEALER? OR RETAILER? OR VENDOR? ? OR BROKER? ?
                CLIENT? OR USER? OR BUYER? OR CLIENT? OR CUSTOMER? OR CONS-
     11787235
S4
             UMER? OR SUBSCRIBER? OR PURCHASER?
S5
      1999379
                MATCH? OR NEGOTIAT?
                S5(3N) (ORDER? ? OR BID OR BIDS OR OFFER? OR AUCTION?)
S6
        52880
         1033
                S2(10N)S6
S7
                S7(10N)(ONLINE OR ON()LINE OR INTERNET OR INTRANET OR WEB?
S8
          242
             OR NETWORK? OR ELECTRONIC?)
S9
          108
                S8(15N)(S3 OR S4)
S10
           17
                S7 (10N) ANONYMOUS?
S11
           67
                (S9 OR S10) NOT PY>1999
S12
           55
                S11 NOT PD=19990723:20030407
           39
                RD (unique items)
/$13
? show file
       9:Business & Industry(R) Jul/1994-2003/Apr 04
File
         (c) 2003 Resp. DB Svcs.
      15:ABI/Inform(R) 1971-2003/Apr 05
File
         (c) 2003 ProQuest Info&Learning
      16:Gale Group PROMT(R) 1990-2003/Apr 04
File
         (c) 2003 The Gale Group
File 148: Gale Group Trade & Industry DB 1976-2003/Apr 04
         (c) 2003 The Gale Group
File 160:Gale Group PROMT(R) 1972-1989
         (c) 1999 The Gale Group
File 275: Gale Group Computer DB(TM) 1983-2003/Apr 04
         (c) 2003 The Gale Group
File 621: Gale Group New Prod. Annou. (R) 1985-2003/Apr 04
         (c) 2003 The Gale Group
File 636: Gale Group Newsletter DB(TM) 1987-2003/Apr 04
         (c) 2003 The Gale Group
File 625: American Banker Publications 1981-2003/Apr 07
         (c) 2003 American Banker
File 268:Banking Info Source 1981-2003/Mar W5
         (c) 2003 ProQuest Info&Learning
```

13/3,K/1 (Item 1 from file: 9)

DIALOG(R) File 9: Business & Industry(R) (c) 2003 Resp. DB Svcs. All rts. reserv.

02479419

WATERHOUSE TAKES STAKE IN ELECTRONIC TRADER

(Waterhouse Investor Services Inc (New York) is buying 12.5% equity stake in Island ECN Inc (New York), electronic stock-trading network)

Globe & Mail, p B16

May 12, 1999

DOCUMENT TYPE: Regional Newspaper ISSN: 0319-0714 (Canada)

LANGUAGE: English RECORD TYPE: Abstract

ABSTRACT:

...buying a 12.5% equity stake in Island ECN Inc. (New York). Island is an electronic stock - trading network that anonymously matches buy and sell orders on the Nasdaq Stock Market. It advertises buy or sell stock orders to its extensive network of subscribers, as well as to anyone who wants to transact on the Nasdaq. It is planning...

13/3,K/2 (Item 2 from file: 9)

DIALOG(R) File 9: Business & Industry(R) (c) 2003 Resp. DB Svcs. All rts. reserv.

02435121 (USE FORMAT 7 OR 9 FOR FULLTEXT)

NYSE moves to usher in extended trading hours

(New York Stock Exchange to introduce extended trading hours to coincide with European markets for all non-US stocks)

Financial News, n 151, p 14+

March 29, 1999

DOCUMENT TYPE: Journal ISSN: 1461-1260 (United Kingdom)

LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 771

(USE FORMAT 7 OR 9 FOR FULLTEXT)

TEXT:

...of electronic communication networks (ECNs), such as Instinet, Island and Eclipse. These ECNs act as **electronic brokers**, **matching** buy and sell **orders**, primarily in Nasdaq **stocks**, for a minimal fee at high speed **electronically**.

The full automation of ECNs gives buyers and sellers all-important anonymity which helps to avoid market impact. They also get reduced costs using...

13/3,K/3 (Item 3 from file: 9)

DIALOG(R)File 9:Business & Industry(R) (c) 2003 Resp. DB Svcs. All rts. reserv.

02400772 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Island ECN to Register as Exchange To Expand Into Listed Stock Arena (Island plans to register as a stock exchange so it may expand into listed stocks; plans moving to 24-hour trading)

Web Finance, p N/A

March 15, 1999

DOCUMENT TYPE: Newsletter (United States)
LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 532

ABSTRACT:

...broadcast its quotes for listed stocks on the consolidated tape, instead of just to Island subscribers, under the new SEC rules, believes pres Matt Andresen.

The firm, a computerized trading network that displays and tries to match buy orders with sell orders in Nasdaq stocks, also plans to switch to 24-hour trading, as early as in 1999, says Andresen...

13/3,K/4 (Item 4 from file: 9)

DIALOG(R) File 9:Business & Industry(R) (c) 2003 Resp. DB Svcs. All rts. reserv.

02339203 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Out Takes: Goldman Sachs

(Goldman Sachs & Co. and E*Trade Group Inc. each agreed to acquire 25% of the Archipelago electronic trading network, which has 4,000 customers)

Investment Dealers' Digest, p N/A

January 11, 1999

DOCUMENT TYPE: Journal; News Brief ISSN: 0021-0080 (United States)

LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 80

(USE FORMAT 7 OR 9 FOR FULLTEXT)

TEXT.

 \dots Archipelago Holdings LLC, with founders Virago Enterprises and Townshend Analytics Ltd.

Archipelago, one of nine **electronic** communications **networks** with SEC approval to **match orders** outside of **trading** systems operated by **stock** exchanges, has about 4,000 **customers** trading Nasdaq stocks through its system.

finance office in New York.

13/3,K/5 (Item 5 from file: 9)

DIALOG(R) File 9:Business & Industry(R) (c) 2003 Resp. DB Svcs. All rts. reserv.

02234246 (USE FORMAT 7 OR 9 FOR FULLTEXT)

BondConnect in Boston

(New electronic execution system BondConnect will be overseen by the Boston Stock Exchange)

Securities Industry News, v X, n 33, p 1+

August 24, 1998

DOCUMENT TYPE: Journal ISSN: 1089-6333 (United States)

LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 657

ABSTRACT:

...line for the BSE, and Crofwell says it will attract new types of investors. BondConnect matches anonymous sell orders and buy orders in a call market. It offers trading in mortgage-backed securities, US asset-backed securities, US government debt and US corporate debt. According to current estimates...

13/3,K/6 (Item 6 from file: 9)

DIALOG(R) File 9:Business & Industry(R)

(c) 2003 Resp. DB Svcs. All rts. reserv.

02154999 (USE FORMAT 7 OR 9 FOR FULLTEXT)

State Street to Launch Automated Bond Trading System

(State Street has made plans to launch a service to conduct fixed-income trades electronically, beginning in the fourth quarter of 1998)

American Banker, v CLXIII, n 102, p 23

June 01, 1998

DOCUMENT TYPE: Newspaper ISSN: 0002-7561 (United States)

LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 481

ABSTRACT:

...analysts predict, 10% of fixed-income volumes will be. Bond Connect will increase liquidity in trading, State Street said. Bond Connect will anonymously match buy and sell bids. The article discusses details about how the system will work.

13/3,K/7 (Item 7 from file: 9)

DIALOG(R) File 9: Business & Industry(R) (c) 2003 Resp. DB Svcs. All rts. reserv.

01223085 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Competition comes to market: SIB's report sets out a blueprint for a new regulatory structure in London

(Radical changes proposed to London Stock Exchange to increase foreign investment)

Financial Times London Edition, p 17

June 23, 1995

DOCUMENT TYPE: Business Newspaper ISSN: 0307-1766 (United Kingdom)

LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 1261

(USE FORMAT 7 OR 9 FOR FULLTEXT)

TEXT:

...ago, the SIB gave provisional approval to the first serious competitor in London to the **Stock** Exchange. That competitor, **Tradepoint**, will **offer** an **order - matching** system under which **buyers match** specific **orders** with **sellers anonymously** through an **electronic** dealing system.

Because those selling shares through such a system are not required to be \dots

13/3,K/8 (Item 1 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

(c) 2003 ProQuest Info&Learning. All rts. reserv.

01836278 04-87269

After-hours trading dilemma

Hoffman, Thomas

Computerworld v33n22 PP: 1, 89 May 31, 1999

ISSN: 0010-4841 JRNL CODE: COW

WORD COUNT: 735

... TEXT: of its trading volume to socalled electronic communication networks such as Instinct and Archipelago. These networks are private firms that match stock orders among buyers and sellers.

Evening trading sessions would give big **brokers** like Merrill Lynch & Co. less time to process their trades with overnight batch runs in...

13/3,K/9 (Item 2 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

(c) 2003 ProQuest Info&Learning. All rts. reserv.

01778892 04-29883

May Day II

Lux, Hal; Willoughby, Jack

Institutional Investor v33n2 PP: 45-46+ Feb 1999

ISSN: 0020-3580 JRNL CODE: IL

WORD COUNT: 4943

...TEXT: an ECN that would display the order. ECNs are trading systems that collect commitments to buy and sell stocks. Subscribers enter anonymous limit orders, hoping to attract a matching price. "What we offer is a facility for working an order," says Island president Andresen. "Island is just a...

13/3,K/10 (Item 3 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

(c) 2003 ProQuest Info&Learning. All rts. reserv.

01726082 03-77072

New breed of ECNs competes for market share

Louis, J C

Wall Street & Technology Online Trading Supplement PP: 16-17 Nov 1998

ISSN: 1060-989X JRNL CODE: WSC

WORD COUNT: 1504

ABSTRACT: The SEC's order handling rules have spawned intense competition between the operators of **electronic** communication **networks** (ECN) - automated trading systems (ATS) - which **match orders** between **buyers** and **sellers** of Nasdaq **stocks**. Today, Instinet, B- **Trade** and Strike are either owned or affiliated with financial information giants with major distribution networks...

13/3,K/11 (Item 4 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

(c) 2003 ProQuest Info&Learning. All rts. reserv.

01707123 03-58113

NASDAQ, AMEX, PHLX--one big happy family?

Sales, Robert

Wall Street & Technology v16n9 PP: 36-42 Sep 1998

ISSN: 1060-989X JRNL CODE: WSC

WORD COUNT: 2217

...TEXT: the "first and most central piece" of automating AMEX's equity trading environment - is an **electronic** bulletin board that displays and matches orders to buy and sell stocks at customer -specified

prices. Currently, Nasdaq and AMEX officials are in the process of creating a customized...

13/3,K/12 (Item 5 from file: 15)

DIALOG(R) File 15:ABI/Inform(R)

(c) 2003 ProQuest Info&Learning. All rts. reserv.

01661548 03-12538

Nasdaq's technology triathlon

Sales, Robert

Wall Street & Technology v16n7 PP: 38-42 Jul 1998

ISSN: 1060-989X JRNL CODE: WSC

WORD COUNT: 1892

...TEXT: by sharing Nasdaq's recently proposed - and highly controversial -- limit order book. The book, an **electronic** bulletin board that would display and **match** orders to **buy** or **sell stocks** at **customer** -specified prices, is scheduled to be incorporated into Nodes - the much-hyped, next-generation Nasdaq...

13/3,K/13 (Item 6 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

(c) 2003 ProQuest Info&Learning. All rts. reserv.

01284288 99-33684

Acquisition brings 'net-based trading nearer

Hoffman, Thomas

Computerworld v30n37 PP: 32 Sep 9, 1996

ISSN: 0010-4841 JRNL CODE: COW

WORD COUNT: 300

...ABSTRACT: Global Trade's 10-person development team. Wit Capital is expected to be the first Internet -based service to allow individual buyers and sellers of New York Stock Exchange and Nasdaq Stock Exchange issues to match their orders electronically.

...TEXT: online stock trading service being launched by microbrewer and "infopreneur" Andrew Klein, has acquired an **electronic** -commerce software package that will enable it to **match** stock orders between **buyers** and **sellers** when the Internetbased service goes live early next year.

The New York-based firm last...

...the first Internet-based initial public offering.

Wit Capital is expected to be the first Internet -based service to allow individual buyers and sellers of New York Stock Exchange and Nasdaq Stock Exchange issues to match their orders electronically. Electronic order - matching services currently are available only to large institutional investors through private trading services such as...

13/3,K/14 (Item 7 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

(c) 2003 ProQuest Info&Learning. All rts. reserv.

00742717 93-91938

The fight to gain control of world equities

Lee, Peter

Euromoney PP: 42-48 Jul 1993 ISSN: 0014-2433 JRNL CODE: ERM

WORD COUNT: 5710

...TEXT: the Instinct system. They wonder whether it, or something like it, might become a global **stock trading** system in the future. Instinct allows **anonymous electronic matching** of **orders** between the largest intermediaries and institutional investors. It is a **broker** which looks a lot like an exchange.

A NEW GLOBAL MECHANISM. Some new mechanism for...

13/3,K/15 (Item 8 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

(c) 2003 ProQuest Info&Learning. All rts. reserv.

00395306 88-12139

Computers and the Crash

Kemlo, Graeme

Australian Accountant v58n2 PP: 35-36 Mar 1988

ISSN: 0004-8631 JRNL CODE: AAA

...ABSTRACT: report, the crash was due in part to specialists (market makers who specialize in one **stock** and **electronically match buy** and sell **orders**). As an added complication, any US securities **dealer** can become a market maker using the NASDAQ computer system. Possible solutions include: 1. limiting...

13/3,K/16 (Item 1 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2003 The Gale Group. All rts. reserv.

07367759 Supplier Number: 59450872 (USE FORMAT 7 FOR FULLTEXT)

How a Sleepy Broker Became a Global Giant.

Traders, v11, n133, p26

Jan, 1998

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 1740

... vice president of new business at New York-based ITG Inc. Even so, not all orders handled anonymously will match .

Thus in Australia, the institutional money manager **selling** a list of **stocks** on POSIT may send residuals that don't cross to ITG Australia, a joint venture...

13/3,K/17 (Item 2 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2003 The Gale Group. All rts. reserv.

07359494 Supplier Number: 59167458 (USE FORMAT 7 FOR FULLTEXT)

The Ups & Downs of Trading in Volatile Markets.

Byrne, John A.

Traders, v10, n131, p42

Nov, 1997

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 2549

... effect, Lupien's electronic call auction aims to allow buyers and sellers to enter and **match** combinations of **stock orders** based on size and price variables in a super- **anonymous** environment and at periodic intervals.

Some buy-side traders are ecstatic about OptiMark. One of...

13/3,K/18 (Item 3 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

07059498 Supplier Number: 59167299 (USE FORMAT 7 FOR FULLTEXT)

BoNY Installs Electronic Bond Trading System. (Bank of New York) (Company
Operations) (Brief Article)

Bank Systems + Technology, v35, n6, p52

June, 1998

Language: English Record Type: Fulltext

Article Type: Brief Article

Document Type: Magazine/Journal; Trade

Word Count: 136

... BondNet system last August from BondNet Trading Systems, Greenwich, Conn. Up to that time, only **broker** - **dealers** had subscribed to BondNet, according to the bank. Now, with institutional investors leveraging **electronic** trading, more liquidity and efficiencies are expected from the **bond** trading process.

BondNet provides automated trade **matching** and **order** routing, real-time pricing, market data, and analytic and order management functions. With the system...

13/3,K/19 (Item 4 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

06436932 Supplier Number: 54983700 (USE FORMAT 7 FOR FULLTEXT)

Quote.com Offers Real-Time Feed from Island ECN.

PR Newswire, p5982

June 24, 1999

Language: English Record Type: Fulltext

Document Type: Newswire; Trade

Word Count: 659

... ECN, Inc. is an electronic order-matching system that gives brokerage firms the power to **electronically** display and **match stock orders** for retail and institutional investors. Island is a fair and impartial stock trading forum where **buyers** and sellers meet directly. Island's efficient and reliable system reduces costs to both brokerage...

13/3,K/20 (Item 5 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

06427859 Supplier Number: 54951598 (USE FORMAT 7 FOR FULLTEXT)
Interactive Technologies.com Announces Launch of Massive Internet Portal
Company, "JoinUsOnline.com", Offering Most Cost Effective Access to
Millions of Internet Shoppers.

Business Wire, p1179

June 22, 1999

Language: English Record Type: Fulltext

Document Type: Newswire; Trade

Word Count: 895

.. Services

- Travel Services Mortgage Loans
- Rent-A-Car Real Estate Services - Moving Services - Telephone Services
- Consumer & Health Services Classified Advertising
 Personal Web Pages WebClassified .net
- New Car Buying
- Online Stock Trading
- Buy Music CD's & Tapes
- Auctions
- Fundraising
- Merchant Accounts

Negotiations with several Fortune 100 companies are now being finalized. In addition, management is currently evaluating...

13/3,K/21 (Item 6 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2003 The Gale Group. All rts. reserv.

06402922 Supplier Number: 54848251 (USE FORMAT 7 FOR FULLTEXT)

Island ECN to Receive \$25 Million from Third Partner; Vulcan Ventures

Acquires Stake in Second Largest ECN.

PR Newswire, p6700

June 10, 1999

Language: English Record Type: Fulltext

Document Type: Newswire; Trade

Word Count: 646

... ECN, Inc. is an electronic order-matching system that gives brokerage firms the power to **electronically** display and **match stock orders** for retail and institutional investors. Island is a fair and impartial stock trading forum where **buyers** and sellers meet directly. Island's efficient and reliable system reduces costs to both brokerage...

13/3,K/22 (Item 7 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2003 The Gale Group. All rts. reserv.

05946103 Supplier Number: 53203313 (USE FORMAT 7 FOR FULLTEXT)

Optimark Finalizes Deal to Become Order Matching Facility of Nasdaq. (Company Business and Marketing)

Sales, Robert

Wall Street & Technology, p43(1)

Nov, 1998

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 528

... scenario, Optimark's platform would be linked to Nasdaq's proposed limit order book -- an **electronic** bulletin board that displays and **matches orders** to **buy** and **sell stocks** at **customer** -specified

"Whether they be from market makers, ECNs or whatever limit order book we...

(Item 8 from file: 16) 13/3.K/23 DIALOG(R) File 16: Gale Group PROMT(R) (c) 2003 The Gale Group. All rts. reserv.

Supplier Number: 48482171 (USE FORMAT 7 FOR FULLTEXT) 05605481 LIMITrader Securities Launches Electronic Bond Trading System to Tap Secondary Market

PR Newswire, p513NYW085

May 13, 1998

Record Type: Fulltext Language: English

Document Type: Newswire; Trade

704 Word Count:

feature as key to success -PRINCETON, N.J., May 13 /PRNewswire/ -- LIMITrader(R), a new trading system with an online negotiating feature electronic bond is being offered to institutional investors and broker - dealers seeking broader access to and greater liquidity in the secondary corporate bond market. The system...

(Item 9 from file: 16) 13/3,K/24 DIALOG(R) File 16: Gale Group PROMT(R) (c) 2003 The Gale Group. All rts. reserv.

Supplier Number: 48413452 (USE FORMAT 7 FOR FULLTEXT) Institutional Investors Begin Using Electronic Bond Trading PR Newswire, p0408NYW038

April 8, 1998

Language: English Record Type: Fulltext

Document Type: Newswire; Trade

329 Word Count:

Systems, Inc. proprietary electronic bond trading system in August, 1997. Up to this time, only broker - dealers subscribed to the BondNet system. The current inclusion of the institutional investing community in electronic bond trading should increase liquidity and bring efficiencies trading process. to the **bond**

The BondNet system provides automated trade matching and order routing, real time pricing and market information as well as analytic and order management functions...

(Item 10 from file: 16) 13/3,K/25 DIALOG(R) File 16: Gale Group PROMT(R) (c) 2003 The Gale Group. All rts. reserv.

Supplier Number: 48256966 05446116 Wall Street looks Durango for help. Svaldi, Aldo

Denver Business Journal, pA1

Jan 30, 1998

Language: English Record Type: Abstract

Document Type: Magazine/Journal; Trade

ABSTRACT:

...Technologies Inc. (Durango, CO) developed a new trading technology that will permit institutional buyers and sellers to anonymously stock orders for much lower trading costs. Junius Peake, a Monfort Distinguished Professor of Finance at the...

(Item 11 from file: 16) 13/3,K/26 DIALOG(R) File 16: Gale Group PROMT(R) (c) 2003 The Gale Group. All rts. reserv.

Supplier Number: 46694209 04554534 Acquisition brings 'net-based trading nearer.

Computerworld, p32

Sept 9, 1996

Record Type: Abstract Language: English Document Type: Magazine/Journal; Tabloid; Trade

ABSTRACT:

...s development team. Electronic Price Improvement Center is Global Trade's electronic-commerce software package. Electronic Price Improvement Center will enable Wit Capital's online stock trading orders between buyers and sellers . The service to match stock service is expected to be available early in 1997.

(Item 12 from file: 16) 13/3,K/27 DIALOG(R) File 16: Gale Group PROMT(R) (c) 2003 The Gale Group. All rts. reserv.

Supplier Number: 43044858 (USE FORMAT 7 FOR FULLTEXT) Sizing Up Fidelity's Adviser Service Financial Services Week, pl

June 1, 1992

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

1135 Word Count:

and balances downloaded to their personal computers.

Also, money managers can deal directly with other buyers and sellers through Fidelity Brokerage's new Investors' Liquidity Network (ILN).

ILN is a computerized order - matching system that allows customers trading and match their trades with to automate their securities orders from other traders to improve price executions.

It was not developed specifically for Advisor Resource Group, said Armstrong...

13/3,K/28 (Item 13 from file: 16) DIALOG(R) File 16: Gale Group PROMT(R) (c) 2003 The Gale Group. All rts. reserv.

Supplier Number: 41780480 (USE FORMAT 7 FOR FULLTEXT) STRATUS COMPUTER AND TCAM SYSTEMS INTRODUCE SECURITIES ORDER MATCHING SOFTWARE

News Release, pl

Jan 7, 1991

Record Type: Fulltext Language: English

Document Type: Magazine/Journal; Trade

Word Count: 1103

... installed in the headquarters offices of financial firms to collect orders electronically from branch or client offices. It then routes copies of these orders to an electronic stock exchange or trading

floor for execution. When orders are returned, CTPS software matches copies with original orders, sends order confirmations to the branch offices, and reports executed orders to the firm's...

13/3,K/29 (Item 1 from file: 148)

DIALOG(R) File 148: Gale Group Trade & Industry DB (c) 2003 The Gale Group. All rts. reserv.

10748255 SUPPLIER NUMBER: 53577283 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Out Takes.

Cooper, Ron

Investment Dealers' Digest, NA(1)

Jan 11, 1999

ISSN: 0021-0080 LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 1372 LINE COUNT: 00115

... Archipelago Holdings LLC, with founders Virago Enterprises and Townshend Analytics Ltd.

Archipelago, one of nine **electronic** communications **networks** with SEC approval to **match orders** outside of **trading** systems operated by **stock** exchanges, has about 4,000 **customers** trading Nasdaq stocks through its system.

Brian Reagan has been appointed managing director in healthcare...

13/3,K/30 (Item 2 from file: 148)

DIALOG(R) File 148: Gale Group Trade & Industry DB (c) 2003 The Gale Group. All rts. reserv.

05567584 SUPPLIER NUMBER: 11317834 (USE FORMAT 7 OR 9 FOR FULL TEXT)
U.S. mergers and acquisitions. (M&A Rosters: Second Quarter 1991)

(directory)

Mergers & Acquisitions, 26, n2, 83(56)

Sept-Oct, 1991

DOCUMENT TYPE: directory ISSN: 0026-0010 LANGUAGE: ENGLISH

RECORD TYPE: FULLTEXT

WORD COUNT: 60650 LINE COUNT: 05830

... service. Its brokerage services consist of stock brokerage and related financial computer services such as **trade** processing, cage management, **stock** loan accounting, **online** inquiry and data collection, portfolio reporting, **order matching**, and **online** trading; and computer services to **brokers** and **traders** in commodity contracts, commodity futures, and options to clients in the U.S. and Canada...

13/3,K/31 (Item 3 from file: 148)

DIALOG(R) File 148: Gale Group Trade & Industry DB (c) 2003 The Gale Group. All rts. reserv.

05225184 SUPPLIER NUMBER: 10930539 (USE FORMAT 7 OR 9 FOR FULL TEXT) Daiwa plans to offer odd-lot trading system for U.S. issues. (Daiwa

Securities America Inc.) (Technology/Operations News)

Iida, Jeanne

American Banker, v156, n122, p3(1)

June 25, 1991

ISSN: 0002-7561 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

WORD COUNT: 281 LINE COUNT: 00022

Another company, New York-based **Electronic** Joint Venture Partners, also announced an automated **trading** system for government **securities** this month. That system is for **brokers** to **match** buy and sell **orders** with the primary **dealers**; it cannot by used by institutional **customers**.

13/3,K/32 (Item 1 from file: 275)

DIALOG(R) File 275: Gale Group Computer DB(TM)

(c) 2003 The Gale Group. All rts. reserv.

02218486 SUPPLIER NUMBER: 21132552 (USE FORMAT 7 OR 9 FOR FULL TEXT)
NASDAQ(R) AMEX PHLX. (National Association of Securities Dealers, parent of
the NASDAQ stock market; American Stock Exchange; Philadelphia Stock
Exchange) (Company Business and Marketing)

Sales, Robert

Wall Street & Technology, v16, n9, p36(1)

Sept, 1998

ISSN: 1060-989X LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 2221 LINE COUNT: 00173

... the "first and most central piece" of automating AMEX's equity trading environment -- is an **electronic** bulletin board that displays and **matches orders** to **buy** and **sell stocks** at **customer** -specified prices. Currently, Nasdaq and AMEX officials are in the process of creating a customized...

13/3,K/33 (Item 1 from file: 636)

DIALOG(R) File 636: Gale Group Newsletter DB(TM)

(c) 2003 The Gale Group. All rts. reserv.

04200023 Supplier Number: 54921912 (USE FORMAT 7 FOR FULLTEXT)

MICROSOFT: Electronic trading pioneers build future of securities trading on Microsoft technologies.

M2 Presswire, pNA

June 17, 1999

Language: English Record Type: Fulltext

Document Type: Newswire; Trade

Word Count: 665

... of even the market's most active times." Electronic communication networks are computer systems that **match** buy and sell **orders**, simplifying the process of **trading stocks** by making it low-cost, fast and **anonymous**. ECNs are currently capturing about 20 percent of Nasdaq-listed stocks.

A new method for...

13/3,K/34 (Item 2 from file: 636)

DIALOG(R) File 636: Gale Group Newsletter DB(TM)

(c) 2003 The Gale Group. All rts. reserv.

04016266 Supplier Number: 53220887 (USE FORMAT 7 FOR FULLTEXT)

NASDAQ TO OFFER PROPRIETARY TRADING INFO ON WEB.

Wall Street Letter, p8(1)

Oct 19, 1998

Language: English Record Type: Fulltext Document Type: Newsletter; Professional Trade

Word Count: 244

... percentage of volume in a certain stock, said Josh Levine, v.p. at Island, an electronic communication network (ECN) that matches buy and sell orders for Nasdaq stocks. Nasdaq will secure the information through user identifications and password protection and participating firms will have to sign an agreement with Nasdaq...

13/3,K/35 (Item 3 from file: 636)

DIALOG(R) File 636: Gale Group Newsletter DB(TM) (c) 2003 The Gale Group. All rts. reserv.

01842441 Supplier Number: 43143480 (USE FORMAT 7 FOR FULLTEXT)

AUTOMATED TRADING: AZX AGREES TO LINKAGES WITH JEFFERIES, MERRIN, BUILDS

NEW SOFTWARE

Investment Management Technology, v1, n21, pN/A

July 10, 1992

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 833

... their orders to other participants (IMT, April 3).

AZX's three additional enhancements, based on **customer** requests, will add balancing, partial-exposure feature and **matching** facilities to the **auction** system.

The new balancing facility will allow customers to buy and sell stock in the AZX electronic auction according to a formula for retaining a balanced portfolio. Buy-side managers often need...

13/3,K/36 (Item 4 from file: 636)

DIALOG(R) File 636: Gale Group Newsletter DB(TM) (c) 2003 The Gale Group. All rts. reserv.

01432112 Supplier Number: 41898263 (USE FORMAT 7 FOR FULLTEXT)

Stratus and TCAM introduce securities order matching software

Financial Technology Insight, pN/A

March, 1991

Language: English Record Type: Fulltext

Document Type: Newsletter; Trade

Word Count: 321

... be installed in the headquarters of financial firms to collect orders electronically from branch or client offices. It then routes copies of these orders to an electronic stock exchange or trading floor for execution. When orders are returned, CTPS software matches copies with original orders, sends order confirmations to the branch offices and reports completed orders to the firm's...

13/3,K/37 (Item 5 from file: 636)

DIALOG(R) File 636: Gale Group Newsletter DB(TM) (c) 2003 The Gale Group. All rts. reserv.

01171721 Supplier Number: 41030767 (USE FORMAT 7 FOR FULLTEXT)

THIRD-MARKET SERVICES SPANNING THE GLOBE FOR NEW CUSTOMERS

Trading Systems Technology, v3, n10, pN/A

Nov 20, 1989

Language: English Record Type: Fulltext

Document Type: Newsletter; Trade

Word Count: 871

... transaction process and the stability of pricing. These features guarantee low market impact for large **stock transactions**.

Orders are collected and matched anonymously once a day at approximately 5:30 p.m. EST on a central processor located...

13/3,K/38 (Item 1 from file: 625)

DIALOG(R) File 625: American Banker Publications (c) 2003 American Banker. All rts. reserv.

0119196

Daiwa Plans to Offer Odd-Lot Trading System for U.S. Issues American Banker - June 25, 1991; Pg. 3; Vol. 156, No. 122

WORD COUNT: 256

BYLINE:

Jeanne Iida

TEXT:

...know where the

issue is, without having to call us."

Another company, New York-based **Electronic** Joint Venture Partners,

announced an automated **trading** system for government **securities** this month. That system is for **brokers** to **match** buy and sell **orders** with the

primary dealers; it cannot by used by institutional customers.

13/3,K/39 (Item 2 from file: 625)

DIALOG(R) File 625: American Banker Publications (c) 2003 American Banker. All rts. reserv.

0117909

* Bankers Trust Helps Start Electronic Stock Exchange

American Banker - April 29, 1991; Pg. 3; Vol. 156, No. 81

WORD COUNT: 450

BYLINE:

By RICHARD LAYNE

TEXT:

...Steven Wunsch, a

former vice president at Kidder, Peabody & Co. He has created a completely electronic stock exchange in which a computer matches buy and sell orders.

On traditional **stock** exchanges, middlemen, called "specialists," link **buyers** with **sellers**.

Banker Trust Clears Trades

The banking subsidiary of Bankers Trust New York Corp. clears and...

```
Items
                Description
Set
                SECURITIES OR BOND? ? OR FUNGIBLE() PROPERT? OR MUTUAL() FUN-
      5695581
S1
             D? ? OR STOCK? ?
                S1(3N) (SALE? OR TRANSACT? OR ORDER? OR TRADING OR TRADE? OR
      1097943
S2
              PURCHAS? OR BUY??? OR SELL???)
                MERCHANT? OR AGENT? OR TRADER? OR SELLER? OR PARTIES OR PA-
      6229980
S3
             RTY OR DEALER? OR RETAILER? OR VENDOR? ? OR BROKER? ?
                CLIENT? OR USER? OR BUYER? OR CLIENT? OR CUSTOMER? OR CONS-
      6518234
             UMER? OR SUBSCRIBER? OR PURCHASER?
                MATCH? OR NEGOTIAT?
S5
      2373880
                S5(3N)(ORDER? ? OR BID OR BIDS OR OFFER? OR AUCTION?)
        49005
S6
                S2(10N)S6
         1084
S7
                S7(15N) (CONDITION? OR CONSTRAINT? OR FACTOR? ? OR RESTRAIN-
            7
S8
             ?)
                S7(10N)(ONLINE OR ON()LINE OR INTERNET OR INTRANET OR WEB?
          148
S9
             OR NETWORK? OR ELECTRONIC?)
                S9(15N)(S3 OR S4)
           60
$10
                S7 (10N) ANONYMOUS?
           12
$11
                (S11 OR S10) NOT PY>1999
           33
S12
                S12 NOT PD=19990723:20030407
           25
S13
           19
                RD (unique items)
S14
? show files
File 20:Dialog Global Reporter 1997-2003/Apr 07
         (c) 2003 The Dialog Corp.
File 476: Financial Times Fulltext 1982-2003/Apr 07
         (c) 2003 Financial Times Ltd
File 610:Business Wire 1999-2003/Apr 07
         (c) 2003 Business Wire.
File 613:PR Newswire 1999-2003/Apr 07
         (c) 2003 PR Newswire Association Inc
File 624:McGraw-Hill Publications 1985-2003/Apr 05
         (c) 2003 McGraw-Hill Co. Inc
File 634:San Jose Mercury Jun 1985-2003/Apr 05
          (c) 2003 San Jose Mercury News
File 810:Business Wire 1986-1999/Feb 28
          (c) 1999 Business Wire
File 813:PR Newswire 1987-1999/Apr 30
          (c) 1999 PR Newswire Association Inc
File 626:Bond Buyer Full Text 1981-2003/Apr 07
          (c) 2003 Bond Buyer
File 267: Finance & Banking Newsletters 2003/Apr 07
          (c) 2003 The Dialog Corp.
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8/3,K/1 (Item 1 from file: 476)
DIALOG(R)File 476:Financial Times Fulltext
(c) 2003 Financial Times Ltd. All rts. reserv.

0008001633 BOFFWEOADNFT

Competition comes to market: SIB's report sets out a blueprint for a new regulatory structure in London

NORMA COHEN

Financial Times, P 17 Friday, June 23, 1995

DOCUMENT TYPE: NEWSPAPER LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

Word Count: 1,280

...dealing. In 1994, more than half the Pounds 1,275bn (Dollars 2,002bn) of shares **traded** on the London **Stock** Exchange were those of foreign companies. Turnover in non-UK company shares in London was...

...use their own capital to buy and sell shares in large blocks through all market **conditions** - providing liquidity even in turbulent markets.

In return for placing their capital at risk, marketmakers...

...ago, the SIB gave provisional approval to the first serious competitor in London to the **Stock** Exchange. That competitor, **Tradepoint**, will **offer** an **order - matching** system under which buyers **match** specific **orders** with sellers anonymously through an electronic dealing system.

Because those selling shares through such a...

8/3,K/2 (Item 1 from file: 813)

DIALOG(R) File 813:PR Newswire

(c) 1999 PR Newswire Association Inc. All rts. reserv.

0330235

LA002

HOUSE OF FABRICS OFFERS TO ENTER MERGER NEGOTIATIONS WITH FABRICLAND

DATE: December 18, 1990

08:31 EST

WORD COUNT: 283

...that "we believe that our offer price, which is substantially above levels at which Fabricland stock has recently traded, is both fair and generous to Fabricland's shareholders."

The **offer** contemplates **negotiation** of a definitive agreement containing normal terms and **conditions** and, is subject to approval of Fabricland shareholders, the board of directors of both companies...

8/3,K/3 (Item 1 from file: 626)
DIALOG(R)File 626:Bond Buyer Full Text

(c) 2003 Bond Buyer. All rts. reserv.

0157749

Competitive Bond Financings Prove Lucrative As New Jersey Underwriters Tap Retail Profits

The Bond Buyer - December 30, 1994; Pg. 1; Vol. 310, No. 29557 Word Count: 702

BYLINE:

By Joyce Hanson

TEXT:

...order by Gov. Christine Todd Whitman will give the state's issuers more leeway in selling bonds through negotiated, sales .

negotiated deals for Whitman's Executive 26 authorizes Order complex financing structures, volatile market conditions , large issue sizes, and variable-rate transactions.

Despite the apparent profits that can be made...

(Item 2 from file: 626) 8/3, K/4DIALOG(R) File 626: Bond Buyer Full Text (c) 2003 Bond Buyer. All rts. reserv.

0156862

No Firm Has 'Inside Track' on N.J. Plan To Recapitalize Fund, Treasurer

The Bond Buyer - November 18, 1994; Pg. 2; Vol. 310, No. 29531 538 Word Count:

BYLINE:

By Joyce Hanson

TEXT:

...bonds on Wednesday.

Clymer also spoke about Gov. Christine Todd Whitman's recently signed order on competitive versus negotiated bond sales . The executive order , which eases an earlier ban on negotiated sales, reflects the findings of an

advisory panel...

...be granted allowing for negotiated sales," Clymer said.

Such exceptions are permitted under the following conditions : the sale involves complex or poor credits, the financing structure is complex, market conditions are volatile, the issue is of a large size, the sale includes variable-rate transactions...

...are new to investors.

While Florio's response "under fire" was to issue an executive order sales , Whitman issued her order "under a banning most negotiated bond sense of commitment," McDonough said.

Dennis Santo, a managing...

(Item 3 from file: 626) 8/3,K/5 DIALOG(R)File 626:Bond Buyer Full Text (c) 2003 Bond Buyer. All rts. reserv.

0146751

Massachusetts Seeks Syndicate After Competitive-Only Fervor

The Bond Buyer - October 15, 1993; Pg. 6(306); Vol. 306, No. 29259

Word Count: 818

BYLINE:

By Patrick M. Fitzgibbons

TEXT:

...change of heart, they said the state must be prepared for the times it does offer negotiated issues. The decision to sell bonds through

negotiation often needs to be made quickly to take advantage of market conditions .

"Noncompetitive bids will be the exception for the state's new-money issuance," said Kenneth...

8/3,K/6 (Item 4 from file: 626)

DIALOG(R) File 626: Bond Buyer Full Text (c) 2003 Bond Buyer. All rts. reserv.

0142330

Issuance Subsides, Prices Recover, But Buyers Need More Municipals
The Bond Buyer - April 30, 1993; Pg. 1(581); Vol. 304, No. 29142
Word Count: 852

BYLINE:

By Sean Monsarrat

TEXT:

...market, demanding price concessions because supply has been so great.

But, due to inclement market conditions, the day-to-day issues on The Bond Buyer's negotiated offerings calendar swelled this week, to 28 issues, valued at \$2.11 billion, from 23 issues...

8/3,K/7 (Item 5 from file: 626)

DIALOG(R) File 626: Bond Buyer Full Text (c) 2003 Bond Buyer. All rts. reserv.

0089229

Moody's Raises New York City GOs to A; MAC Upgraded to Aa

The Bond Buyer - June 1, 1988; Pg. 1(1073); Vol. 284, No. 27901

Word Count: 835

BYLINE:

By John J. Doran

TEXT

... officials, however, denied that

and said that they would price the deal according to market conditions .

Mr. Levine said New York City plans its next **bond sale**, a ated offering of about \$500 million, to be sold sometime during

negotiated offering of about \$500 million, to be sold sometime during
the

late summer. Tomorrow's competitive...
? t 14/3,k/all

14/3,K/1 (Item 1 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter

(c) 2003 The Dialog Corp. All rts. reserv.

06126473 (USE FORMAT 7 OR 9 FOR FULLTEXT)

TSE readies for challenge from alternative trading: Exchange will cut prices for trade executions

KATHERINE MACKLEM FINANCIAL POST, p04

July 09, 1999

JOURNAL CODE: FFP LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 482

... setting out the rules and regulations for the new alternative trading systems. These systems, which electronically match the orders from securities buyers and sellers, have proliferated in the United States, but have been blocked in Canada except in limited...

14/3,K/2 (Item 2 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

05888566 (USE FORMAT 7 OR 9 FOR FULLTEXT)
Quote.com Offers Real-Time Feed from Island ECN

PR NEWSWIRE June 24, 1999

JOURNAL CODE: WPRW LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 658

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... ECN, Inc. is an electronic order-matching system that gives brokerage firms the power to **electronically** display and **match stock orders** for retail and institutional investors. Island is a fair and impartial stock trading forum where **buyers** and sellers meet directly. Island's efficient and reliable system reduces costs to both brokerage...

14/3,K/3 (Item 3 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

05852072 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Interactive Technologies.com Announces Launch of Massive Internet Portal Company, "JoinUsOnline.com", Offering Most Cost Effective Access to Millions of Internet Shoppers

BUSINESS WIRE June 22, 1999

JOURNAL CODE: WBWE LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 1086

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... Services

- Travel Services - Mortgage Loans

- Rent-A-Car - Real Estate Services - Moving Services - Telephone Services

- Consumer & Health Services - Classified Advertising

- Personal Web Pages - WebClassified .net

Trading - Buy Music CD's & - New Car Buying - Online Stock Tapes - Auctions - Fundraising - Merchant Accounts Negotiations with several Fortune 100 companies are now being finalized. In addition, management is currently evaluating...

(Item 4 from file: 20) 14/3,K/4 DIALOG(R)File 20:Dialog Global Reporter (c) 2003 The Dialog Corp. All rts. reserv.

05793768 (USE FORMAT 7 OR 9 FOR FULLTEXT)

MICROSOFT: Electronic trading pioneers build future of securities trading on Microsoft technologies

M2 PRESSWIRE June 17, 1999

LANGUAGE: English RECORD TYPE: FULLTEXT JOURNAL CODE: WMPR

WORD COUNT: 625

(USE FORMAT 7 OR 9 FOR FULLTEXT)

of even the market's most active times." Electronic communication networks are computer systems that match buy and sell orders , simplifying the process of trading stocks by making it low-cost, fast anonymous . ECNs are currently capturing about 20 percent of Nasdaq-listed stocks.

A new method for...

(Item 5 from file: 20) 14/3,K/5 DIALOG(R)File 20:Dialog Global Reporter (c) 2003 The Dialog Corp. All rts. reserv.

05774425 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Updated Story Text

PR NEWSWIRE June 16, 1999

LANGUAGE: English RECORD TYPE: FULLTEXT JOURNAL CODE: WPRW

WORD COUNT: 729

(USE FORMAT 7 OR 9 FOR FULLTEXT)

of even the market's most active times."

Electronic communication networks are computer systems that match buy and sell orders , simplifying the process of trading stocks by making it low-cost, fast and anonymous . ECNs are currently capturing about 20 percent of Nasdaq-listed stocks.

A new method for...

(Item 6 from file: 20) 14/3,K/6 DIALOG(R)File 20:Dialog Global Reporter (c) 2003 The Dialog Corp. All rts. reserv.

05767108 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Electronic Trading Pioneers Build Future of Securities Trading on Microsoft Technologies

PR NEWSWIRE

June 16, 1999

LANGUAGE: English RECORD TYPE: FULLTEXT JOURNAL CODE: WPRW

WORD COUNT: 683

(USE FORMAT 7 OR 9 FOR FULLTEXT)

of even the market's most active times."

Electronic communication networks are computer systems that match buy and sell orders, simplifying the process of trading stocks by making it low-cost, fast and anonymous . ECNs are currently capturing about 20 percent of Nasdaq-listed stocks.

A new method for...

(Item 7 from file: 20) 14/3,K/7

DIALOG(R) File 20: Dialog Global Reporter (c) 2003 The Dialog Corp. All rts. reserv.

05691456 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Island ECN to Receive \$25 Million From Third Partner; Vulcan Ventures Acquires Stake in Second Largest ECN

BUSINESS WIRE June 10, 1999

LANGUAGE: English RECORD TYPE: FULLTEXT JOURNAL CODE: WBWE

WORD COUNT: 730

(USE FORMAT 7 OR 9 FOR FULLTEXT)

ECN, Inc. is an electronic order-matching system that gives brokerage firms the power to electronically display and match stock for retail and institutional investors. Island is a fair and impartial stock trading forum where buyers and sellers meet directly. Island's efficient and reliable system reduces costs to both brokerage...

(Item 8 from file: 20) 14/3,K/8

DIALOG(R) File 20: Dialog Global Reporter (c) 2003 The Dialog Corp. All rts. reserv.

05652285 (USE FORMAT 7 OR 9 FOR FULLTEXT)

E-Trading Set to Advance on European Bond Market

SECTION TITLE: Automated Trading & Straight-Through Processing

Andrew Burger

AMERICAN BANKER, v11, p8

June 07, 1999

LANGUAGE: English RECORD TYPE: FULLTEXT JOURNAL CODE: WAMB

WORD COUNT: 1126

(USE FORMAT 7 OR 9 FOR FULLTEXT)

a common pool. Executable prices are displayed on participants' computer screens. A proprietary, rules-based order matching system executes participants' orders . CFTS provides bond dealers an anonymous trading European government bonds and is also adaptable to eurobond trading.

The Swiss Stock Exchange's SWX eurobond trading...

(Item 9 from file: 20) 14/3,K/9

DIALOG(R)File 20:Dialog Global Reporter (c) 2003 The Dialog Corp. All rts. reserv.

05322117 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Placement by HSBC `met requirements'

ENOCH YIU

SOUTH CHINA MORNING POST, p2

May 15, 1999

JOURNAL CODE: FSCP LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 447

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... month for the first time in 26 years, he said.

The new exchange, Island ECN (electronic communication network), provides a computerised stock trading system, which automatically matches up orders from buyers and sellers.

Mr Sheng pointed out that **electronic** trading systems such as Island ECN had been luring trades away from New York Stock...

14/3,K/10 (Item 10 from file: 20)

DIALOG(R) File 20: Dialog Global Reporter (c) 2003 The Dialog Corp. All rts. reserv.

04152744 (USE FORMAT 7 OR 9 FOR FULLTEXT)

SFC to offer brokers security guidance ahead of regulatory bill

ENOCH YIU

SOUTH CHINA MORNING POST, p3

January 28, 1999

JOURNAL CODE: FSCP LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 355

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... said there were only three brokers in Hong Kong accepting buy and sell orders from **clients** via the Internet and then executing trades on the stock and futures exchanges.

Internet trading is expected to grow more rapidly as the stock exchange upgrades its trading system to launch the Automated Order Matching and Execution System next year. This will allow all 500 stock brokers to offer Internet trading.

"Upon completion of this project by mid-2000, it is expected...

14/3,K/11 (Item 1 from file: 476)

DIALOG(R) File 476: Financial Times Fulltext (c) 2003 Financial Times Ltd. All rts. reserv.

0008001633 BOFFWEOADNFT

Competition comes to market: SIB's report sets out a blueprint for a new regulatory structure in London

NORMA COHEN

Financial Times, P 17

Friday, June 23, 1995

DOCUMENT TYPE: NEWSPAPER LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

Word Count: 1,280

...dealing. In 1994, more than half the Pounds 1,275bn (Dollars 2,002bn) of shares traded on the London Stock Exchange were those of foreign companies. Turnover in non-UK company shares in London was...

...marketmakers must show the best prices they offer for shares on the exchange's Seaq electronic bulletin board.

But just two weeks ago, the SIB gave provisional approval to the first serious competitor in London to the Stock Exchange. That competitor, Tradepoint, will offer an order - matching system under which buyers match specific orders with sellers anonymously through an electronic dealing system. Because those selling shares through such a system are not required to be

(Item 2 from file: 476) 14/3, K/12DIALOG(R) File 476: Financial Times Fulltext (c) 2003 Financial Times Ltd. All rts. reserv.

0006005042 BOBE2A6AFLFT

International Capital Markets: Computer trading for Treasuries launched PATRICK HARVERSON

Financial Times, P 29

Wednesday, May 29, 1991 RECORD TYPE: FULLTEXT DOCUMENT TYPE: NEWSPAPER LANGUAGE: ENGLISH

Word Count: 351

...half-dozen inter-dealer broking firms which have traditionally played the role of middleman between buyers and sellers of Treasury bills, notes and bonds .

Now, traders who work for primary dealers will be able to electronically input orders to buy or sell securities into a computer on their desks, and have those orders matched and executed within seconds by EJV Brokerage. All bids, offers and trades completed on the...

(Item 1 from file: 624) 14/3,K/13 DIALOG(R) File 624: McGraw-Hill Publications (c) 2003 McGraw-Hill Co. Inc. All rts. reserv.

A STOCK EXCHANGE IN CYBERSPACE?: Microbrewer Andrew Klein talks about his maxi ambitions

Business Week May 13, 1996; Pg 8; Number 3475

ISSN: 0007-7135

Section Heading: Special Report (Enterprise) Roundtable: INTERNET FINANCE 1,056 *Full text available in Formats 5, 7 and 9*

Word Count:

... Q: Meanwhile, you plan to apply to the SEC and state regulators to become a broker - dealer and a stock exchange?

A: Yes. We want to create an Internet -based stock exchange where companies can list their stocks and investors can buy without a broker . Our computer will match the best order to buy with the best order to sell. They'll be taken out of the...

(Item 2 from file: 624) 14/3,K/14 DIALOG(R) File 624: McGraw-Hill Publications (c) 2003 McGraw-Hill Co. Inc. All rts. reserv.

NASD WANTS SEC TO END AZX'S REGULATION-FREE RIDE IF MARKET CONDUCTS DAYTIME

AUCTIONS

Securities Week August 24, 1995; Pg 1; Vol. 22, No. 35

ISSN: 0149-3582 Journal Code: SW

Full text available in Formats 5, 7 and 9 Word Count: 681

BYLINE:

TD

... must carry out its auctions after the close of the New York Stock up orders for securities through a daily Exchange. AZX matches anonymous auction between broker-dealers and institutional investors.

The market has a proposal pending before the...

(Item 3 from file: 624) 14/3,K/15

DIALOG(R) File 624:McGraw-Hill Publications (c) 2003 McGraw-Hill Co. Inc. All rts. reserv.

0340031

LIMITRADER SYSTEM FOR CORPORATES, MUNIS GETS NO-ACTION NOD FROM SEC

Securities Week October 21, 1991; Pg 1

ISSN: 0149-3582 Journal Code: SW

Full text available in Formats 5, 7 and 9 Word Count:

BYLINE:

JΡ

TEXT:

... size is \$100,000 par value of bonds, or 100 bonds. The system will permit matching of anonymous limit orders to buy securities or negotiations that result in executed trades.

ql em en"We'll encourage people to...

(Item 1 from file: 810) 14/3,K/16

DIALOG(R) File 810: Business Wire

(c) 1999 Business Wire . All rts. reserv.

0337749 BW042

TANDEM: Bombay Stock Exchange selects Tandem Systems for computerization of India's largest exchange

June 3, 1993.

Business Editors and Computer/Electronics Writers Byline:

... Tandem NonStop Cyclone systems, contract services, and Ungermann-Bass local area networking products, to provide traders and member brokers with an online trading system that will match stock trading orders with quotations, then confirm and settle

trades electronically .

The new computerized trading system will replace the exchange's current paper-based trading method...

14/3,K/17 (Item 1 from file: 813)

DIALOG(R) File 813:PR Newswire

(c) 1999 PR Newswire Association Inc. All rts. reserv.

1276847 NYW085

LIMITrader Securities Launches Electronic Bond Trading System to Tap Secondary Market

DATE: May 13, 1998 13:39 EDT WORD COUNT: 668

May 13 /PRNewswire/ -- LIMITrader(R), a new **electronic bond trading** system with an **online negotiating** feature is being **offered** to institutional investors and **broker - dealers** seeking broader access to and greater liquidity in the secondary corporate bond market. The system

14/3,K/18 (Item 2 from file: 813)

DIALOG(R) File 813:PR Newswire

(c) 1999 PR Newswire Association Inc. All rts. reserv.

1255305 NYW038

Institutional Investors Begin Using Electronic Bond Trading

DATE: April 8, 1998 09:36 EDT WORD COUNT: 299

... Systems, Inc. proprietary electronic bond trading system in August, 1997. Up to this time, only broker - dealers subscribed to the BondNet system. The current inclusion of the institutional investing community in electronic bond trading should increase liquidity and bring efficiencies to the bond trading process.

The BondNet system provides automated trade **matching** and **order** routing, real time pricing and market information as well as analytic and order management functions...

14/3,K/19 (Item 1 from file: 267)

DIALOG(R) File 267: Finance & Banking Newsletters (c) 2003 The Dialog Corp. All rts. reserv.

04544606

Out Takes

Ron Cooper

Investment Dealers Digest

January 11,1999 DOCUMENT TYPE: NEWSLETTER

PUBLISHER: SECURITIES DATA PUBLISHING

LANGUAGE: ENGLISH WORD COUNT: 1292

RECORD TYPE: FULLTEXT

(c) SECURITIES DATA PUBLISHING All Rts. Reserv.

TEXT:

....Archipelago Holdings LLC, with founders Virago Enterprises and Townshend Analytics Ltd.

Archipelago, one of nine **electronic** communications **networks** with SEC approval to **match orders** outside of **trading** systems operated by. **stock** exchanges, has about 4, 000 **customers** trading Nasdaq stocks through its system.

Brian Reagan has been appointed managing director in healthcare...

9/7/63

```
Description
        Items
Set
                SECURITIES OR BOND? ? OR FUNGIBLE() PROPERT? OR MUTUAL() FUN-
       228636
S1
             D? ? OR STOCK? ?
                SALE? OR TRANSACT? OR ORDER? OR TRADING OR TRADE? OR PURCH-
       869187
S2
             AS? OR BUY??? OR SELL???
               MERCHANT? OR AGENT? OR TRADER? OR SELLER? OR PARTIES OR PA-
       514307
S3
             RTY OR DEALER? OR RETAILER? OR VENDOR? ? OR BROKER? ?
               CLIENT? OR USER? OR BUYER? OR CLIENT? OR CUSTOMER? OR CONS-
       299969
S4
             UMER? OR SUBSCRIBER? OR PURCHASER?
                MATCH? OR NEGOTIAT?
       194232
S5
                S1(3N)S2
         5690
S6
                S5(3N) (ORDER? ? OR BID OR BIDS OR OFFER? OR AUCTION?)
         6485
S7
                S6(15N)S7
S8
           71
                S6(5N) ANONYMOUS?
           17
S9
                (S8 OR S9) (10N) (S3 OR S4)
S10
           46
SID
                S10 AND IC=G06F-017/60
           34
                         all combined
? show files
File 348:EUROPEAN PATENTS 1978-2003/Mar W05
         (c) 2003 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20030403,UT=20030327
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           (c) 2002 The Gale Group
  File 256:SoftBase:Reviews, Companies&Prods. 82-2003/Feb
           (c) 2003 Info. Sources Inc
  File 139:EconLit 1969-2003/Mar
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A trading primer

Pirrong, Craig

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ABSTRACT: A discussion of the ways in which stocks are traded in the US is presented. Methods discussed include floor trading, over-the-counter trading and electronic trading.

TEXT: STOCKS ARE TRADED IN SEVERAL ways in U.S. markets. Some companies choose to list their stocks for trading on traditional exchanges. The New York Stock Exchange (NYSE) is the most important listing exchange, but listed stocks are also traded on the American Stock Exchange (AMEX) and regional exchanges in Chicago, Philadelphia, Boston, San Francisco, and Los Angeles. Regional exchanges trade stocks that are listed on other markets as well as their own listings. Stocks that are not listed on an exchange (including many technology stocks, such as Microsoft) are traded in the over-the-counter (OTC) market.

TRADING IN STOCKS

Floor Trading Trading in listed stocks takes place primarily on an exchange floor. A customer who wants to buy 100 shares of IBM stock "at the market" submits his order to a brokerage firm. The brokerage sends the order to a floor broker located at the IBM trading "post." The broker is an agent of the customer. The floor broker announces that he has an order to buy 100 shares and solicits offers from others at the post. The broker may deal with another broker who has a customer order.

Alternatively, the broker may buy the shares from the "specialist." The specialist is a firm that buys and sells stock on its own capital. The specialist always quotes prices at which he is willing to buy (the bid) and sell (the offer). The specialist also handles so-called "limit orders" in which customers specify their willingness to buy or sell at specific prices. For some stocks there are independent floor traders who quote bid and offer prices.

The specialist, limit-order customers, and independent traders all compete to supply liquidity to the market by standing ready to buy or sell at prices that they quote. The floor broker trades with whoever offers the best price, be it another broker, the specialist, a limit order submitter, or an independent trader.

Over-the-Counter Trading Trades in OTC stocks are not executed in a physical marketplace. The most heavily traded OTC stocks are part of the National Association of Securities Dealers Automatic Quotations System (NASDAQ). NASDAQ is not a market per se; it is a computer network that disseminates bids and offers to buy stocks.

In the "old" NASDAQ (i.e., before 1997), only dealers (also called market makers) could post quotes. (Dealers are firms that supply liquidity by posting bids and offers to buy and sell stock with their own capital.) Dealers were under no obligation to display customer limit orders on the system. Thus, a customer who wanted to buy 100 shares of Microsoft stock would contact his broker. The broker would consult NASDAQ to determine which dealer was offering the stock at the lowest price. The broker would then telephone the dealer with the lowest offer and arrange to buy the stock.

A series of controversies surrounding NASDAQ led the Securities and

Exchange Commission (SEC) to adopt new rules for NASDAQ in 1997. One of the most important new rules requires dealers to display customer limit order bids and offers on NASDAQ.

Electronic Trading Electronic communication networks (ECNs) have exploited that rule. A customer can submit limit orders to buy or sell stock to an ECN. As the name suggests, those orders are communicated electronically to a central computer. if the customer submits a buy order, for instance, the ECN computer first determines whether there are customer sell orders in the system at prices equal to or lower than the price the buyer specifies. if there are, the ECN matches these orders. if not, the ECN routes the order to NASDAQ.

Some ECNs execute as much as 60 percent of their orders on NASDAQ. The proliferation of ECNS (such as Instinet, island, and Archipelago) has made it easier for customers to enter limit orders (and therefore supply liquidity) in competition with traditional OTC dealers.

"Day traders" are individuals who supply liquidity (by submitting limit orders) in competition with dealers. Day traders typically use ECNs. That competition has caused dealer profits to fall and the number of dealers in most OTC stocks has declined as a result.

TRADING IN FUTURES AND OPTIONS

THE PAYOFF ON A FUTURES CONTRACT depends on the price of the underlying asset. in the case of German bond futures, for example, the payoff depends on the price of German government bonds (bunds) at the time the contract expires. Futures exchanges design contracts and list them for trade. Their members earn profits by supplying brokerage and liquidity to customers who desire to trade the contract. Although many exchanges may launch similar contracts, trading typically gravitates to a single exchange.

Floor Trading Trading in futures and options markets in the United States takes place primarily on exchange floors through open outcry auctions. Customers submit orders to buy and sell to brokerage firms. Those orders are then routed to brokers on the exchange floor, where each futures contract is traded in its own "pit."

if a customer wants to sell a corn futures contract, a floor broker in the corn pit shouts out, asking for bids. other traders on the floor shout out their bids. The broker then executes a trade with the highest bidder. Some of the other traders are also brokers trading for customers, but many are so-called "locals" who trade on their own account. Locals supply liquidity by selling when there is an excess of buyers and buying when there is an excess of sellers.

Some pits (such as the Treasury bond futures contract pit at the Chicago Board of Trade) have hundreds of brokers and locals; others have a mere handful. Trading activity in the largest pits is loud and frenzied. Despite the seeming chaos, open outcry has proved a very efficient means of trading futures and options.

Electronic Trading Several U.S. futures exchanges trade by computer after regular trading hours. Customers submit orders electronically to a central computer that matches buy and sell orders based on algorithms that assign price and time priority to each order. Orders are matched on the basis of price, and if there is a tie along the price dimension, orders are then matched by time of submission.

Several European exchanges, including Germany's Deutsche Borse and Sweden's OM are completely computerized and have no floor trading. The London International Financial Futures and Options Exchange (LIFFE) went electronic after it lost its biggest contract (a futures contract on German bunds) to Eurex, an upstart computerized German futures exchange.

When trading in bund futures shifted from LIFFE to Eurex, the members of LIFFE could no longer earn profits from supplying liquidity and brokerage.

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DESCRIPTORS: Securities trading; Stock exchanges; Electronic trading CLASSIFICATION CODES: 3400 (CN=Investment analysis); \$130 (CN=Investment services); 9190 (CN=United States)
PRINT MEDIA ID: 14819

06726435 SUPPLIER NUMBER: 14568623 (THIS IS THE FULL TEXT)

Market integration and price execution for NYSE-listed securities. (New

Market integration and price execution for NYSE-listed secu York Stock Exchange) (includes appendices)

Lee, Charles M.C.

Journal of Finance, v48, n3, p1009(30)

July, 1993

ISSN: 0022-1082 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 10411 LINE COUNT: 00820

ABSTRACT: For New York Stock Exchange (NYSE) listed securities, the price execution of seemingly comparable orders differs systematically by location. In general, executions at the Cincinnati, Midwest, and New York stock exchanges are most favorable to trade initiators, while executions at the National Association of Security Dealers (NASD) are least favorable. These intermarket price differences depend on trade size, with the smallest trades exhibiting the biggest per share price difference. Collectively, these results raise questions about the adequacy of the existing intermarket quote systems (ITS), the broker's fiduciary responsibility for "best execution," and the propriety of order flow inducements. (Reprinted by permission of the publisher.)

studies should be able to provide more evidence on this issue. REFERENCES

Blume, Marshall E., and Michael A. Goldstein, 1991, Differences in execution prices among the NYSE, the regionals and the NASD, Working paper, University of Pennsylvania.

Coffee, John C., Jr., 1991, Brokers and bribery, New York Law Journal, September 27, 5.

Crawford, William B., Jr., 1991, Brokerage fees stir debate on IN THE EMERGING GLOBAL economy, the same security is often traded simultaneously at different physical locations. For such securities, market integration—the full and timely communication of intermarket information—is an issue of practical, academic, and regulatory importance. (1) In a fully integrated market, incoming buy (or sell) orders have an opportunity to be matched against the best available sell (or buy) orders across all locations. This intermarket matching process lowers the cost and time delay of trading and enhances the market's price efficiency. Conversely, in a poorly integrated (i.e., "fragmented") market, incoming orders may not be executed at the best available intermarket price. In such markets, the choice of where an order is routed can have a significant effect on the price obtained.

This paper explores the closely related issues of market integration and price execution for a sample of New York Stock Exchange (NYSE) listed securities. Most NYSE-listed securities also trade on at least one of five regional exchanges and in the Over-The-Counter (OTC) market. These centers are linked by an electronic system (the Intermarket Trading System, or ITS) that immediately disseminates trades and quote revisions to all locations. In U.S. equity markets, exchange dealers must meet or beat the best ITS quote. Therefore, if the ITS system is fully communicating intermarket trading opportunities, identical market orders should have an equal opportunity for best price execution, regardless of initial routing locations. Conversely, if the ITS system does not fully communicate intermarket trading information, seemingly comparable orders may execute at different prices, depending on where they are routed and how they are handled at each location.(2)

The main proposition of this study is that the location of execution is price relevant for trades in NYSE-listed securities. The issue is timely, pertaining to the current regulatory debate surrounding payments for order flows. Since 1988, members of the National Association of Securities Dealers (NASD) and some regional specialists have paid brokers cash rebates, typically one cent per share, for directing customers orders to their market centers. These cash payments are one of many order flow arrangements between brokers and dealers (collectively called "order flow inducements") that may influence how brokers route their customers' orders.(3) Currently, the Securities and Exchange Commission (SEC) is considering the welfare implications of these inducements. One important issue under deliberation is whether the fiduciary responsibility of brokers to procure "best execution" for customers is compromised by side payments

from competing dealers. Evidence of significant intermarket differences in the cost of trade execution would suggest possible conflicts of interest. Conversely, if price execution does not differ by trade location, these dealer-broker arrangements are unlikely to compromise the brokers' primary responsibility to their customers.

Using returns of matched stock portfolios, prior studies have investigated the effect of different market designs on asset prices (e.g., Reinganum (1990)). This study, however, uses Institute for the Study of Security Markets (ISSM) data on individual trades to compare the price execution across different market locations. Three separate tests are conducted using trades and quotes from 1988 and 1989. The first test compares the "liquidity premium" paid on off-Board trades to that paid on adjacent NYSE trades, where the liquidity premium is defined as the absolute difference between the trade price and the midpoint of the bid-ask spread. The second test classifies all trades as buys or sells using the Lee and Ready (1991) algorithm and compares the trade price of off-Board buys (or sells) to adjacent NYSE buys (or sells). The third test examines the relative likelihood of price improvement over the quoted prices by documenting the frequency of inside-the-spread trading across the different exchanges. For all three tests, off-Board trades are matched against NYSE trades of similar size in the same security executed within two minutes. Collectively, these tests provide a framework for comparing execution costs across different markets.

The main result from these tests is that the execution price of similar adjacent trades can differ systematically depending on the location of execution. Even after controlling for the security traded, the trade size, and the time of execution, we still observe significant average execution price differences by location. Most of these differences are attributable to trading inside the best ITS quote, suggesting that the ITS does not fully reflect the available intermarket liquidity. (4) These findings provide empirical evidence about the consequences of market fragmentation. For market practitioners, the intermarket price differences also provide a benchmark for the broader problem of evaluating dealer services.

All three tests document a systematic relation between trade location and execution price. The first test shows liquidity premiums are typically lower at the Cincinnati, Midwest, and New York stock exchanges and higher at the NASD. Similarly, the second test shows investors tend to pay lower prices for buys and obtain higher prices for sells on the NYSE relative to adjacent off-Board trades. On average, the price for non-NYSE trades is 0.7 to 1 cent per share less favorable than that of adjacent NYSE trades. This amount is comparable to the typical cash rebates in payment for order flow agreements suggesting that, during 1988 and 1989, off-Board dealers paying cash inducements were able to recoup these payments in the form of higher effective spreads.(5) In aggregate, estimates of the total additional cost of off-Board executions are \$13 to \$18 million for 1988 and \$36 to \$47 million for 1989.

Further, these tests show that the relative price performance of market centers differs by trade size. In the small trades (100 to 400 shares), the NYSE offers the best execution. In the midsize trades (500 to 4900 shares), the Cincinnati and Midwest exchanges significantly outperform the NYSE in both years, while the Pacific exchange outperforms the NYSE for 1988. Relative price performance in the large trade class (5,000 shares or more) is mixed, with the Midwest, Pacific, and Instinet (which caters exclusively to an institutional clientele) all performing well. Only the NASD performs consistently worse than the NYSE in all size categories.

The third test, which is conditional on spread size, shows that price performance is closely related to the frequency of inside-the-spread executions. The market centers with the most frequent inside-the-spread executions--e.g., the NYSE, Midwest, and Cincinnati--also had the most favorable prices. Conversely, the market center least likely to improve prices over the prevailing ITS quote--the NASD--had the least favorable trade prices. Separate analyses show these results are not attributable to the tighter spreads on NASD trades. In fact, the frequency of price improvement on NASD trades is relatively low for all spread sizes.

Supplemental tests show that these findings are not specific to the choice of the two-minute window used for matching trades, since similar results obtain using one-, five-, or ten-minute windows. These findings are

also not attributable to nonsynchronous reporting of trades and quotes on the ISSM tape. When quotes that are five seconds, two minutes, and five minutes ahead of each trade are used, similar intermarket rankings result. Moreover, these findings are not due to cross-sectional differences in firm characteristics, since similar results are obtained when execution costs are aggregated first by firm, then across firms.

Several important caveats should be kept in mind in interpreting these results. First, since the ISSM data present only trade prices, not orders, the identity of the trade initiator is unknown. This study assumes that all trades are initiated by outside public traders, who pay for liquidity. Consequently, the results pertain to execution costs for market orders, not limit or other price-contingent orders (unless these orders are executable upon receipt).(6) Further, trades that are not initiated by public orders (e.g., trades initiated by market makers) are not analyzed separately. Although the exact effect of these trades is difficult to quantify, they represent a relatively small percent of total trades and are not expected to alter significantly the findings reported here.(7)

Second, these tests focus on only one aspect of order execution—the trade price. While the average trade price provides a useful benchmark for price performance, the evaluation of dealer services is a broader problem. Factors such as the speed of execution, the amount of guaranteed depth (shares available at each price), and the reliability of trade settlement are all relevant in assessing execution quality. The brokers' fiduciary responsibility to procure "best execution" for their clients may involve tradeoffs along these different dimensions. Therefore, these results should be viewed as just one element in the evaluation of relative market center performance.

Third, while these results document an association between location and trade price, they do not establish causality. Causality seems to flow from location to price performance, but the reverse could also hold: that is, trades may be sent to particular locations in anticipation of price performance. For example, trades may be sent to a regional exchange only when it provides the best price. This possibility is particularly important for locations with relatively low trading volume, such as Instinct or Cincinnati. However, it does not explain the NASD results, since trades seem to be sent to there in spite of inferior price performance. The higher volume of the NASD in recent years may be attributable to payments for order flows, a practice the NASD endorses. However, it could also be explained by better dealer performance on the NASD in other dimensions unrelated to price execution.

Finally, we should not equate lower execution costs with superior market maker performance. In a pure dealer market, such as the NASD, the market maker is the sole supplier of liquidity. However, at the NYSE and most other exchanges, price improvements do not necessarily take place at the specialist's expense. At the NYSE, in particular, where specialist participation is estimated to be 13 to 22 percent of total share volume (Hasbrouck and Sofianos (1992) and Mann and Seijas (1991)), price improvement occurs largely at the expense of public limit orders. (8) The tests in this study measure relative costs of liquidity, but do not evaluate the contribution of specialists to the liquidity supply.

The remainder of the paper is organized as follows. Section I provides background on the order flow debate, Section II discusses why execution costs might differ across market centers, Section III describes the data, Sections IV through VI report the results of the three tests, Section VII addresses other methodological concerns and presents supplemental analyses, and Section VIII concludes.

I. Order Flow Inducements

The market for dealer services is highly competitive. A steady flow of customer orders allows the market maker to make a "dealer's turn"—the profit inherent in purchasing at the bid and selling at the ask.(9) Interestingly, the competition among dealers to attract order flow has focused on brokers, rather than directly on investors. Since most investors do not specify a preference for trade location, this decision is typically made by the brokers.

To attract orders, competing market centers offer brokers a myriad of inducements (see NASD (1991)). The most controversial of these inducements involves cash payments. In a typical payment for order flow arrangement, the market maker agrees to pay the broker one cent per share for all

directed market orders. The dealer also establishes certain conditions to be met for cash payments. For example, NASD (1991) cites these common stipulations in payment for order flow agreements: trading spreads of at least one eighth, minimum monthly order flow (usually a minimum of 100,000 shares), maximum shares per order (usually 3,000 shares), order source restrictions (no professional or program orders), and no payments for limit orders or orders for low-priced stocks.

Neither brokers nor dealers are required to report the total amount of their payments for order flow.(10) Although estimates of the extent of these activities vary widely (Steptoe (1989), Securities Week (1989a, 1989b)), the general consensus is that the practice started in earnest in 1988 and has grown rapidly since. Payment for order flow arrangements are most often associated with the NASD, where the practice first started, with participation from the regional specialists increasing since 1989 (Crawford (1991), NASD (1991)).

One key issue for the SEC is whether customer orders entrusted to a broker should be used as a bargaining chip in contract negotiations. Proponents of payment for order flow inducements argue that investors are not harmed by these arrangements. They note that payment for order flows is in the spirit of fair competition, which in turn lowers execution costs. Moreover, such cash payments are no different from other "soft dollar" arrangements between brokers and dealers, where order flows are exchanged for reciprocal services. Opponents of payments for order flow claim that such payments exacerbate the selective market making of regional dealers (i.e., "cream skimming"). Unlike NYSE specialists, who must make a market for all NYSE-listed stocks, purchasers of order flows can target the more profitable "low end" business, which consists mainly of small trades in more liquid stocks. The NYSE specialist, finding profit margins reduced, may look to recover these losses by increasing the quoted spreads and, thus, the overall liquidity costs. (11)

Implicit throughout the regulatory debate is the assumption that the market for NYSE-listed securities is fully integrated, so price execution is the same at all locations. With market integration, the broker's responsibility to procure best execution is unlikely to be compromised by side payments from market makers. Therefore, if an examination reveals that execution costs are not significantly different by location, the debate should focus primarily on the effects of cream skimming versus increased competition. However, if execution costs differ by location, broker-dealer independence (both perceived and substantive) may be of real concern. In particular, if market centers that pay for order flow offer significantly worse price execution, the propriety of order flow inducements may need to be reexamined.

II. Execution Costs and Trade Location

Several reasons lead us to expect a relation between execution costs and trade location. First, and perhaps most important, the ITS quote does not fully reflect available intermarket liquidity. While all the market makers guarantee execution at the best intermarket price, as displayed on the ITS, much of the trading actually takes place inside the ITS spread (e.g., Lee and Ready (1991)). This activity reflects "hidden liquidity" at local markets that is not readily communicated by electronic links such as the ITS. In the case of the NYSE or a regional exchange, this liquidity may be provided by floor traders or the specialist—parties who may not wish to advertise formally their proclivity to trade.(12) The relative performance of individual market centers depends on their ability either to attract this liquidity, or provide it in a dealer capacity (see Harris (1990)). Since each market center has its own procedure for handling customer orders and attracting liquidity suppliers, the average cost of execution can differ by location.

The NYSE has long argued that the most favorable execution occurs on the primary exchange floor, where inside-the-spread executions occur frequently as specialists and floor brokers compete to supply liquidity. In response to this argument, regional specialists and NASD dealers point out that the spread for much of the order flow executed at their centers is only one eighth, leaving little room for price improvement (Stern (1989)). When the spread is wider, regional executions also transact frequently inside the best ITS quote. In fact, most regional exchanges as well as some NASD dealers have developed their own algorithms to improve the likelihood of inside-the-spread executions. The relative effectiveness of these

algorithms in reducing execution costs for public market orders is an open empirical issue.

Few prior studies have examined trade execution performance across markets. Reinganum (1990) finds differences in the monthly returns of NYSE and NASD firms matched on size and risk characteristics. He suggests that the multiple dealer market of the NASD may have a liquidity advantage for small firms, but not for large firms. Mayer and Leigh (1991) find that daily extreme prices (highs and lows) are more likely to be off-Board trades. They note that if one assumes the daily highs (or lows) tend to be buys (or sells), this finding is consistent with worse off-Board execution. These studies do not measure the liquidity premium per trade, or control for trade characteristics such as size and time of execution.

Using intraday data and different empirical methods, Blume and Goldstein (1991) provide an analysis much closer to this study. They also compute a liquidity premium per trade based on the absolute difference between the trade price and the quote "midspread." In their study, the average difference in liquidity premiums between NYSE and non-NYSE trades during 1989 is estimated to be 0.79 cents per share. However, Blume and Goldstein do not match regional and NYSE trades by their time of execution, nor do they report results for individual exchanges, or directly compare prices for buys and sells. Instead, their study makes extensive efforts to identify the best intermarket quote and provides detailed comparisons of NYSE and non-NYSE quote prices.

III. Data Description

The data used in this study are obtained from the Institute for the Study of Security Markets (ISSM). The ISSM data contain a record of all trades and quotes for NYSE and AMEX-listed firms. Each trade and quote is time stamped to the nearest second, with the originating exchange identified. The study period covers all 505 trading days in 1988 and 1989, except October 25, 1989. The quotes for this date are missing in the version of the ISSM tape used for this study, so all trades from this day are excluded. Opening batch trades on the NYSE (the first trade of each day not preceded by an opening quote) are excluded because they do not have a regional exchange counterpart. In addition, all late trades, trades reported out of sequence, or trades with special settlement conditions are excluded since their prices are not comparable to adjacent trades.

The sample of firms used is the first 500 NYSE common stocks on the 1988 and 1989 tape that were listed for the full year and had a CUSIP number. The firms are sorted by ticker symbol on the ISSM tape. Since it is unlikely that symbol order is related to execution costs, this sample should represent the total population of NYSE-listed securities. Table I reports the distribution of trades for the 500 sample firms in each year. Just over 7.3 million trades were transacted for these firms during 1988, of which 1.9 million (26 percent) TABULAR DATA OMITTED were executed away from the NYSE. Similarly, 8.6 million trades were transacted in 1989, of which 2.5 million (29 percent) were executed off-Board. The proportion of regional trades for this sample is similar to that reported for the total population of NYSE-listed securities during this period. The overall movement of volume away from the NYSE, with the NASD as the main beneficiary, is also consistent with the aggregate statistics reported in the NYSE Fact Book (1991).

With the exception of the Cincinnati exchange and Instinet, the regional exchanges tend to execute smaller trades. For example, in 1988 trades of 900 shares or less (a rough proxy for individual investor trades) represent over 75 percent of all transactions in NYSE-listed securities on the Boston, Midwest, Pacific, and Philadelphia exchanges, as well as the NASD. On the NYSE, only 62 percent of the total trades are 900 shares or less. These differences may be due, in part, to the maximum order size stipulation of many order flow arrangements.

IV. Liquidity Premium Tests

A. Full Sample

In the first set of tests, the liquidity premium for each trade is computed as the absolute difference between the actual trade price and the "midspread" (average of bid and ask prices) of the prevailing quote at the time of the trade. Assuming that, on average, the specialist's spread is set symmetrically around the equilibrium price, the liquidity premium provides an estimate of the effective "half-spread" for each trade. (13) The liquidity premium paid on off-Board trades is compared to the liquidity

premium paid on NYSE trades. All quotes eligible for the Best-Bid-Or-Offer (BBO) calculation, except regional exchange "autoquotes," are used.(14)

Case 1 of Figure 1 illustrates the liquidity premium test. Regional trades T4 and T6 have liquidity premiums of 12.5 cents and 0 cents per share, respectively. Assuming the NYSE trades T3 and T5 are matched to T4, then the excess cost of the T4 execution is computed as 6.25 cents per share in favor of the NYSE. Similarly, the excess cost for T6 is -6.25 cents per share, favoring the regional exchange.

Table II provides a profile of the average liquidity premium paid for the trades in each size and exchange category, expressed in cents per share. For 1988, the average liquidity premium on NYSE trades is 9.6 cents per share, which is slightly lower than the average liquidity premium on off-Board trades. However, intermarket comparisons based on these numbers may be misleading for two reasons. First, if regional dealers "skim the cream" by making markets only in more liquid stocks, regional trades should have a lower average liquidity premium than NYSE trades. Thus, lower execution costs may, in fact, be a product of the stock selection procedure followed by regional dealers. Second, quoted and effective spreads are known to display pronounced intraday patterns (e.g., Lee, Mucklow and Ready (1993)). The exact reasons for these patterns are not known, but their existence suggests it may not be appropriate to match trades from different times of the day. To TABULAR DATA OMITTED TABULAR DATA OMITTED TABULAR DATA OMITTED control for this potential selection bias, this study uses a time-matched design in all the following tests. (15)

B. Time-Matched Sample

Tables III and IV control for the potential selection bias created by cream skimming. Table III shows the distribution of regional trades that have at TABULAR DATA OMITTED least one matching trade on the NYSE. A NYSE trade is considered a match if it is for the same security, in the same size class, and occurs on the same day within two minutes of the regional trade. A later test examines results using matching windows of one, five, and ten minutes. Using a two-minute window, approximately 667,000 (35 percent) of the off-Board trades in 1988 have at least one adjacent trade of similar size on the NYSE. Similarly, in 1989, approximately 950,000 (38 percent) off-Board trades have a matched observation on the NYSE. If more than one matching NYSE trade is found, the liquidity premium for the control group is the average of all qualifying NYSE trades. All regional trades executed between 9:40 A.M. and 3:50 P.M. are eligible for inclusion in this sample.(16) A total of 64 paired observations (5 in TABULAR DATA OMITTED 1988, 59 in 1989) are removed as a result of outlier tests. The main filter is the requirement that the absolute difference in liquidity premium between adjacent NYSE and regional trades be less than \$2.00 per share.

Table IV reports the excess liquidity premium paid on the regional exchange relative to the liquidity premium for the control group of matched NYSE trades. Table values represent the liquidity premium for the regional trade minus the liquidity premium for the paired NYSE trade(s), averaged across all pairs and expressed in cents per share. Positive (or negative) values reflect higher (or lower) execution costs on the regionals. To average across trade sizes, two calculations are made for each exchange:

1. Average by trades

|Mathematical Expression Omitted

2. Average by shares

|Mathematical Expression Omitted where:

n = the number of matched observations for this exchange.

|LPremReg.sub.i

 $\,=\,$ the liquidity premium paid on the regional trade in the ith matched sample for this exchange

|LPremNYSE.sub.i

= the liquidity premium paid on the NYSE trade(s) in the ith matched sample for this exchange

|Shr.sub.i

= the number of shares traded for the regional trade in the ith matched sample for this exchange.

The first measure reflects the additional liquidity premium paid on the average trade executed at the given exchange. The second measure places greater weight on the larger trades and captures the additional liquidity premium paid on the average share executed at the given exchange.

The number of positive values in both panels of Table IV shows the liquidity premium is generally lower for NYSE trades. The NYSE advantage is most pronounced in the 100 to 400 shares class. The regional markets receive a disproportionately large share of these trades, yet appear to provide poorer price execution. For small trades, a Fisher sign test of statistical significance readily rejects the null hypothesis that the execution cost of off-Board trades is the same as the execution cost of adjacent NYSE trades. Given the large number of observations, this result is not surprising. Perhaps more important, however, is the economic magnitude of the estimated differences. The average excess liquidity premium per trade (the next to last column of Table IV) shows that off-Board trades generally involve higher execution costs in the order of 0.5 to 1.5 cents per share. The equally weighted average excess liquidity premium per non-NYSE trade is 0.69 cents per share in 1988 and 0.98 cents per share for 1989. Interestingly, this is approximately the magnitude of the payments in many order flow agreements. The evidence suggests that the higher effective spreads in the off-Board trades is sufficient to cover the cost of these payments.

The last column shows the volume-weighted difference by exchange. Here the difference between NYSE and non-NYSE performance is less pronounced, reflecting the better performance of the regional exchanges in the larger trade classes. In 1988, the Midwest exchange and Instinet had better volume-weighted performance than the NYSE. In 1989, only the Midwest performed better.

Although price execution is generally more favorable at the NYSE, results vary significantly by trade size and location. For example, the Cincinnati, Midwest, and Pacific exchanges tend to perform better than the NYSE in the midsized (500 to 5,000 share) trades. The NASD trades, however, display consistent higher liquidity premiums than their matching NYSE trades. This result holds in each size category in both years. Instinct, an electronic display system that allows large financial institutions to trade directly with each other, tends to perform better than the NYSE in the larger trade sizes.

C. Explaining the NASD Results

One of the most consistent results in Table IV is the performance of the NASD. In most trade sizes and across both years, NASD executions seem the least favorable to investors. These results may reflect the greater reliance of NASD dealers on intermarket quotes. Section VI examines this possibility by evaluating the frequency of inside-the-spread trades. The NASD result may also reflect the method of measuring liquidity premium. An important feature of the liquidity premium test is its reliance on the quote midspread at the time of the trade. This computation does not include any price "slippage" due to a movement in the quoted spread between the time of the order issuance and trade execution. (17) For example, if the midspread moves higher by one eighth between the time a buy order is issued and when it is executed, the additional one-eighth cost will not be included in the liquidity premium computed above. In short, this approach measures only the execution cost relative to an existing spread, when an investor may, in fact, face a significant additional risk due to slippage. The potential effect of price slippage is examined next.

- V. Tests Based on Buy and Sell Prices
- A. Directional Price Tests

Some argue that best price execution is more than simply execution inside the bid-ask spread (e.g., NASD (1991)). During 1988 and 1989, NASD dealers typically executed at the best ITS bid-ask quote without attempting further price improvement.(18) Although this strategy reduces the chance of an inside-the-spread trade, it does provide faster execution. Since the benefit of an inside-the-spread execution may be outweighed by the cost of price slippage, NASD dealers may provide superior price execution that the liquidity premium test fails to capture. The tests in this section directly compare the trade price for buys (or sells) on regional exchanges to the trade price for adjacent buys (or sells) on the NYSE. If the price advantage from faster executions is greater than the price advantage of inside-the-spread executions, the NASD performance should improve under these tests.

Lee and Ready (1991) propose an algorithm that classifies each trade as buyer or seller initiated. This algorithm (summarized in Appendix B)

relies on the prevailing bid and ask prices as well as the prior price changes ("tick tests") in classifying trades. In this study, the algorithm provides a direct way of comparing the price of buys (or sells) executed in a regional exchange to the price of adjacent buys (or sells) on the NYSE. The market that provides better execution should have lower average trade prices on market buys and higher average trade prices on market sells. The same algorithm is applied to trades from all exchanges, so even though trade misclassifications may introduce noise, they should not bias the results in favor of a particular exchange.

Case 2 of Figure 1 illustrates the directional trade test. The key trade in this sequence is T4. Under the liquidity premium test, this trade is compared to T3 and T5, and the regional execution is less favorable by 6.25 cents. However, the quote revision between T4 and T5 (i.e., price slippage) shows that the initiator of T4 actually bought at a cheaper price than the initiator of T5. The directional price test recognizes the better price obtained on the T4 trade and credits the regional exchange for a more favorable execution.(19)

Table V reports the average difference between the price of buyer-initiated regional trades and the price of matching buyer-initiated trades on the NYSE, expressed in cents per share. Positive table values indicate a higher price paid for buys on the regional exchanges. Negative values indicate savings from the NYSE. The number of positive values in Table V suggests that the price obtained for similar buys is generally higher for regional executions. These findings are consistent with the results of the liquidity premium tests in Table IV. Once again, the NYSE advantage is most evident TABULAR DATA OMITTED in the small trades, with the Cincinnati, Midwest, and Pacific exchanges doing well in the midsize trades. The results for seller-initiated trades are symmetrical and also favor the NYSE; prices for NYSE sells are generally higher than prices for regional sells. The magnitudes of the price differences for seller-initiated trades (not reported) are similar to those reported in Table IV for buyer-initiated trades.

These results show that price slippage is not a significant factor in explaining the NASD performance. For example, the average excess cost per trade for 1988 using the directional price test is 0.63 cents per share (0.43 for buys and -0.84 for sells), which is only slightly lower than the 0.69 cents per share reported in Table IV. Under the directional price test, the average excess cost for NASD actually increases from 1.10 cents per share to 1.45 cents per share. For the NASD trades in this sample, faster execution does not translate into lower execution costs.

B. An Estimate of Aggregate Costs

Table VI presents an estimate of the aggregate additional costs borne by investors whose orders are executed away from the NYSE. The per share execution costs are based on the time-matched sample, which includes over one third of the total off-Board trades. In Table VI, the volume-weighted per share cost is applied to the total share volume in each exchange to obtain an estimate of the total additional cost of regional trades. Panel A provides an estimate based on the excess liquidity premium method used to produce Table IV. Panel B provides an estimate based on the average additional cost using the directional price tests. These costs are obtained by averaging additional regional costs on all matched observations of buys and sells.

For 1988, the estimated additional cost of execution borne by investors is \$13 million using the liquidity premium approach and \$18 million using direct buy-sell prices. These totals increase to \$47 million and \$36 million respectively in 1989. The increase from 1988 to 1989 is due not only to a volume shift away from the NYSE, but also to an increase in the additional cost of off-Board execution. Thus, trade volume is moving away from the NYSE even as the performance gap between the NYSE and non-NYSE trade is widening. Despite its superior price performance, volume on the Cincinnati exchange actually decreases between 1988 and 1989. Meanwhile, the fastest volume increase is at the NASD, the market with the least favorable execution costs.(20)

VI. Price Improvement Tests

Panel A of Table VII reports the results of price improvement tests, based on the percentage of trades inside the best ITS spread for each exchange. The NYSE trades in the match sample are executed inside the spread 39 percent of the time in 1988 and 37 percent in 1989. By

comparison, the Cincinnati trades are inside the spread 48 and 49 percent of the time in 1988 and 1989, respectively. NASD trades are inside the spread only 30 and 27 percent of the time in 1988 and 1989. As expected, the price improvement observed in the earlier tests is related to the fremquency of inside-the-spread trading at each location.

Since much of the order flow targeted for purchase is executed when the spread is one eighth, these trades provide little opportunity for price improvement TABULAR DATA OMITTED TABULAR DATA OMITTED (Stern (1989)). For example, if relatively more NASD trades are executed when the NYSE spread is only one eighth, the results in Panel A might simply reflect fewer opportunities for price improvement at the NASD. To address this possibility, Panel B reports the inside-the-spread trades as a percentage of the total number of trades at each spread size. Thus, Panel B measures the likelihood of price improvement at each location, conditional on the spread size.

Two results are striking. First, when the best ITS quote is greater than one eighth, a substantial proportion of the trading takes place inside the spread. At a one-quarter spread, a full 62 percent (or 38 percent) of the NYSE (or NASD) trades execute between the best bid and ask prices. This finding shows the best ITS quote is not capturing all the liquidity available in the market. Second, the relative ranking across exchanges is the same as in the first two tests. The market centers that are most likely to improve on quoted prices (NYSE, Cincinnati, Midwest, and Pacific) are the locations with the best price execution. The NASD is least likely to improve prices relative to the ITS quote, even when price improvement is possible.

VII. Supplemental Analyses

A. Size of the Match Window

All the reported results are for trades matched on the basis of a two-minute window. A wider window provides larger sample sizes, but less assurance that market conditions are similar for NYSE and off-Board trades. To examine the sensitivity of the results to this parameter, I recompute the excess liquidity premiums using one-, two-, five-, and ten-minute windows. Since the results do not vary significantly by window size, they are not reported separately. In general, as the window size decreases, the NYSE performance tends to improve against the performance of other markets. However, intermarket rankings are largely unchanged.

B. Timing Issues

A potential concern with the research design is the mismatching of trades due to intermarket differences in the timeliness of reporting. If matching NYSE trades are systematically recorded ahead of the corresponding regional trades (for example, if NYSE traders tend to respond faster on both upward and downward price moves), the earlier results could be biased in favor of the NYSE. The two-minute match window, while mitigating the problem, may not fully alleviate it. To examine this possibility, Figure 2 shows the distribution of adjacent NYSE trades for the ten minutes around a regional trade. The slight increase in the NYSE volume in the same minute as the regional trades suggests the arrival time of orders across the exchanges is correlated. However, matched NYSE trades do not appear to be executed earlier than their regional counterparts. In fact, the regional trades have a slight speed advantage over their NYSE control sample.

Another timing issue is the problem of identifying the appropriate quote for each trade. Lee and Ready (1991) show trades that trigger quote revisions may be recorded on the ISSM tape after the quote revision. This is because the NYSE quote revision is typically entered electronically, while many trades are still recorded using the slower card readers. Since the new quote tends to bracket the trade that triggered it, the triggering trade will have the appearance of price improvement. If NYSE trades are more likely to trigger quote revisions, the reported results might reflect this bias. The five-second quote delay can mitigate this problem, but not resolve it.

Ideally, this problem should be addressed by identifying the prevailing quote at the time each order is submitted. Since this is impossible with the ISSM data, an alternative test is performed. Specifically, the liquidity premium test is repeated twice, using the prevailing best ITS quote at least two minutes and at least five minutes before each trade. Some of these quotes are superseded by newer quotes, so this approach will introduce noise into the calculation. However, it

provides less risk of a bias toward a particular exchange. The results (not reported) remain similar, with no change in the intermarket rankings.

C. Regional Trades Due to "Limit Book Protection"

The regional exchanges and the NYSE handle public limit orders differently in one important respect. On the NYSE, public limit orders have the opportunity to be exposed to a large volume of incoming market orders. To ensure that public limit orders at the regionals receive comparable execution, regional market makers typically guarantee execution of these orders when the limit order price is penetrated by a transaction in another market center. To implement this limit book protection, the regional market maker initiates a "shadow" trade at his own exchange for the same price as the triggering trade. This trade triggers the regional limit order, thus ensuring it receives as good an execution as the limit orders on other exchanges.

Since these shadow trades are not initiated by public market orders, the argument could be made that they should be excluded from the analysis. This exclusion is not possible with ISSM data, nor is the extent of this activity easily quantified. However, the likely effect of including these trades is to understate reported intermarket differences. Since regional shadow trades are typically triggered by a NYSE trade at the same price, paired observations caused by limit book protection should show identical execution costs. Therefore, the inclusion of these observations in the sample reduces the average price difference between NYSE and non-NYSE executions.

D. Accounting for Cross-Sectional Firm Characteristics

We should note that these tests do not control for cross-sectional differences across the sample firms. The unit of analysis is individual trades, so that securities with greater volume receive greater proportional weight. This approach is reasonable given the research focus on price execution per trade. However, since the extent of off-Board trading varies widely across securities, the results may be due to a small proportion of the sample firms. To examine this possibility, the liquidity premium tests are recomputed so that the excess cost per trade is first averaged for each firm, then aggregated across firms. Statistical significance is measured by the proportion of firms in which the NYSE (or the regional exchange) demonstrates superior price performance. Once again, since the findings for these tests confirm the earlier results, they are not separately reported.

E. Other Potential Matching Problems

Finally, since no two orders are identical in all respects, other matching problems could remain between NYSE and non-NYSE trades. For example, larger market orders are sometimes broken up in execution as they march through the limit book. Since the NYSE tends to receive large orders, a large trade sent to the NYSE may appear as a series of smaller trades, all poorly executed relative to the prevailing quote. In this case, the price performance of the NYSE would appear worse. In other situations, regional price performance could be slighted. Short of a controlled laboratory experiment, such differences are difficult to eliminate. Therefore, this study should be regarded as a first step in the continuing process of understanding market integration and intermarket price performance.

VIII. Summary

This paper presents three simple ways to measure the execution and price performance of different market centers. The results show that for NYSE-listed securities the price obtained on similar adjacent trades can differ by location of execution. In particular, the results for 1988 and 1989 suggest that Cincinnati, Midwest, and NYSE executions are generally more favorable to the initiator of the trade than executions on the other exchanges. The average price difference between the NYSE and matched off-Board trades is 0.7 to 1 cent per share. These results are statistically significant at any reasonable level of confidence. In total dollars, the aggregate excess cost for off-Board trades is estimated at \$13 to \$18 million for 1988 and \$36 to \$47 million for 1989.

Several implications derive from these results. First, the existing intermarket structure for NYSE securities is much less integrated than many had previously assumed. These findings suggest that order routing may warrant consideration by investors and regulators. Brokers currently rely on the ITS quote to fulfill "best execution" obligations. This strategy may be inappropriate given the effects of market fragmentation documented here.

Many investors currently delegate the responsibility of choosing the best market center to their broker. These results suggest individual investors may wish to consider other arrangements, discussed below, to ensure the benefits of order inducements flow directly to them.

These results also suggest that full integration may be difficult to attain under the current ITS system. Under ITS, liquidity providers at the primary exchange may not be motivated to reveal their presence to off-Board traders. Thus, the current system encourages gamesmanship between exchanges, as each probes the other for "hidden liquidity" not revealed in the intermarket quote. The price improvement algorithm recently implemented by a prominent NASD member firm, Madoff Investments, is a prime example of this type of intermarket price exploration (see Apendix A). A long-term solution to the market integration problem may involve more fundamental changes to the intermarket quote system. One possibility is a consolidated electronic limit book with strict price and time priority. This appears to be a promising area for future research.

The order flow debate involves factors not considered in this study. However, these results do raise several interesting issues pertinent to the debate. First the magnitude of the price differences is comparable to order flow cash inducements. In light of these price differences, the broker's primary responsibility could potentially be compromised by order flow inducements. Second, the performance gap between NYSE and off-Board executions is most evident in the small trades. This finding is disturbing, since small trades are the primary target of order flow inducements and small traders may be least aware of the dealer-broker arrangements. Finally, some (limited) evidence suggests that trading volume is not flowing in the direction of better price execution. Prices obtained on the NASD are typically least favorable, yet the trading volume on this exchange has increased most dramatically in recent years. In contrast, the better performing centers, such as Cincinnati and the NYSE, actually experienced a decline in market share between 1988 and 1989. Investors may be moving to the NASD for nonpecuniary reasons, but the volume shift may also reflect broker response to cash inducements. The finding is at least suggestive that order flow patterns may be responsive to cash inducements, rather than price execution. (21)

While investors appear to pay more for off-Board executions, brokers who receive order flow inducements might indirectly pass on these savings through lower commission fees. Given competition among brokers, investors may be partially compensated for the additional costs through lower broker commissions. However, investors whose orders are diverted are unlikely to be fully compensated for two reasons. First, unless enough traders exercise their right to direct orders, brokers are not compelled to pass on all the inducement benefits to investors. Second, even if all the inducement benefits are reflected in the commission structure, these savings are spread out across all investors, so investors who have their orders diverted still subsidize those who do not.

More importantly, investors should recognize that dealer and broker services are fundamentally separable. Traders that engage a broker do not legally commit themselves to a particular dealer. Since investors can shop for both the lowest broker commission and the lowest dealer (execution) cost, these costs are not fungible. Currently, many investors delegate the choice of a dealer to their broker, presumably because the choice appears inconsequential. The evidence here suggests some investors—e.g., small traders—may be better off not delegating this decision. An investor could either direct an order to a particular location or "sell" this right by choosing a low—priced broker who does not allow location choices. In either case, the benefit of order flow inducements passes directly to the ultimate consumer. These arrangements reflect the fact that order flows belong to investors, not brokers.

Finally, the existence of intermarket price differences suggests brokers should be called to higher level of accountability for their trade execution performance. A simple first step is to require brokers to report the location where the order is executed. Another step is to make available periodic measures of comparative execution costs by location, and perhaps even by brokerage house. Given information on the comparative costs of alternative executions, informed investors can decide for themselves whether to take further action. As the consuming public focuses on these measures of performance, the various parties competing for their business

should modify their actions to provide the most favorable execution possible.

Appendix A: Electronic Systems at Regional Exchanges and the NASD Most regional and OTC markets have their own price improvement procedures. These typically involve guaranteeing the best ITS price and further exposing an incoming order to either the floor of the local exchange or the ITS system for a period of time (i.e., "stopping" a trade). While incoming orders may be manually "stopped" at any time, electronic systems at many exchanges automatically "stop" certain types of orders. These automated systems are briefly summarized below.

Boston, Pacific, and Midwest

These three exchanges have similar systems. The BEACON (Boston), Scorex (Pacific), and MAX (Midwest) systems all display orders of up to 1,099 shares for 15 seconds to the local floor for possible improvement. If a better price is not obtained in 15 seconds, the order is executed against the best intermarket quote at the time of receipt.

In addition, during 1990, the Midwest exchange introduced a new price improvement algorithm that offers a one-eighth improvement on all trades if its execution at the intermarket quote generates a double down or double up tick (i.e., two successive negative or positive price changes).

Cincinnati

Cincinnati has no exchange floor and operates solely on a quote display system. The NSTS system at Cincinnati automatically executes orders of up to 2,099 shares at the best intermarket quote.

Philadelphia

The PACE system of Philadelphia automatically executes at the best intermarket quote for up to 599 shares.

NASD

Most NASD market makers during this study period automatically executed orders at the best intermarket quote. However, during the latter part of 1990, Madoff Investment (a prominent member of NASD), instituted an automated execution system dubbed MISSION. For orders of 300 shares or greater, in stocks trading at one-fourth or more spread, MISSION adjusts the Madoff ITS bid or ask to reflect the customer's order for one minute. If this quote is taken within the one minute, the entire order is cleared at the improved price.

Appendix B: Inferring Trade Direction

The direction of individual trades is inferred by the following algorithm developed in Lee and Ready (1991). The only modification is that Lee and Ready use only NYSE quotes, while this study uses all BBO-eligible quotes on the ISSM tape (a quote is BBO-eligible if it qualifies for the NASD Best-Bid-Or-Offer calculation):

- 1. Current Quote Match--If the trade price is at the bid or ask, and the current quote was not revised within the last 5 seconds, then the direction of the trade is determined by the current quote (i.e. a buy if it is at the ask and a sell if it is at the bid).
- 2. Delayed Quote Match--If the current quote is less than 5-seconds old, it is ignored and the trade price is compared to the bid and ask prices of the previous quote.
- 3. Outside the Spread--If the trade price, when compared to the quote in either 1 or 2, is greater than the ask (or less than the bid), then the transaction is deemed a buy (or sell).
- 4. Tick Test--If the trade is at the midpoint of the spread, or if a BBO-eligible quote is not available, the tick test is used to determine trade direction. A BBO-eligible quote is deemed to be unavailable if the last NYSE-quote issued has a nontradable condition code. Using the tick test, if the last price change was positive (or negative), then the current trade is deemed a buy (or sell). All out-of-sequence trades are ignored in updating price changes.
- 5. Proximity to Bid-Ask--If a trade is between the spread but not at the midpoint, then the trade is classified according to its proximity to the bid or ask price. Trades at prices above the midpoint are classified as buys and trades at prices below the midpoint are classified as sells.
- 6. Indeterminable--This classification is assigned to a trade when none of the above conditions apply. Specifically, it applies to the first trade of the year for each firm and any trade which is reported out of sequence.
 - 1 The term "market integration" is used here to describe the extent

that electronic linkages communicate the available trading opportunities at different physical locations. A fully integrated market is one in which all the price-relevant trading information available at each location is communicated quickly to the entire market.

- 2 Note that market integration is a necessary, but not sufficient, condition for location indifference. Even in a fully integrated market, dealers may strategically ignore the intermarket information (where laws permit), or traders may gravitate to certain markets for nonpecuniary reasons (see Harris (1992) for a discussion of the economic forces that cause markets to integrate or fragment).
- 3 See the report of the Order Flow Committee of NASD (1991), for a review of background information and institutional details. Coffee (1991) provides a good summary of legal issues.
- 4 Harris (1990) defines liquidity in terms of the willingness of some traders (often, but not necessarily, dealers) to allow others to trade on demand. Intermarket liquidity refers to the aggregate liquidity available across all market locations.
- 5 This comparison is intended only to help put the intermarket price differences into economic perspective. No causality between the intermarket prices and the existence of dealer-broker arrangements is intended. In fact, many regional dealers did not pay for order flow during this time period.
- 6 See Harris and Hasbrouck (1992) for a discussion of order submission strategies for market versus limit orders.
- 7 Trades initiated by market makers are a subset of the intermarket orders sent across the ITS system. Except for the Cincinnati exchange, total trades from ITS orders represent at most 15 percent of the trades at each regional exchange. The related issue of regional trades arising from "limit book protection" is discussed in Section VII.
- 8 Price improvement can take place on an exchange floor in several ways. First, an incoming order can "cross" with a floor trader with a public order inside the spread (executed against the "crowd"). Alternatively, the specialist may elect to execute the order against his own account inside the quoted spread. Finally, the specialist can "stop" an order, guaranteeing execution at prices at least as favorable as the prevailing quotes. If an offsetting public order arrives in the next few minutes, the two are crossed inside the spread, resulting in price improvement for both sides. If no offsetting order appears, the stopped order is executed at the guaranteed price. In an extreme example, if the specialist only "stops" an incoming market order when the quotes represent public limit orders, then all price improvement from a midpoint cross occurs at a cost to public limit orders.
- 9 Dealers also profit from order flows through the division of revenue from the Consolidated Tape Association (CTA). Brokers and other market participants pay CTA for the dissemination of trade information. This revenue is divided among the market centers on the basis of the number of transactions each reports.
- 10 Brokers provide a standard notification to customers indicating that the firm may have received additional remunerations in connection with a customer's order. This notice typically appears on the back of confirmation slips.
- 11 Glosten (1991) provides a formal treatment of the economic tradeoff between lower spreads from increased competition and higher spreads due to cream skimming. Empirical tests of the Glosten model using bid-ask spreads are complicated by the possibility that NYSE specialists may widen spreads (and increase inside-the-spread trading on the floor) for strategic reasons, to deter nonprimary exchange traders from free riding on the NYSE price discovery mechanism. This type of gamesmanship is difficult to distinguish from a spread effect due to "cream skimming."
- 12 The NASD operates under a multidealer electronic quote system, without an exchange floor, so floor trading does not explain inside-the-spread trades at the NASD. However, NASD dealers can, and do, improve prices relative to the ITS spread by facilitating execution inside the best ITS quote. This type of liquidity is also "hidden," in the sense that it is not reflected in the ITS system. Mann and Seijas (1991) provide a nontechnical discussion of differences between the NYSE specialist system and the NASD dealer system.
 - 13 Following the recommendation in Lee and Ready (1991), any quote in

the five seconds preceding the trade is ignored in favor of the previous quote. This mitigates against situations where a quote triggered by a trade is recorded on the ISSM tape with the same time stamp as, or just ahead of, the triggering trade.

- 14 The current version of the ISSM tape does not contain noncompetitive regional quotes (defined as regional quotes which are worse than NYSE quotes). Most of the excluded quotes are electronically generated "autoquotes" of 100 shares each. Such quotes automatically adjust as NYSE quotes change to avoid becoming the best available quote. In theory, the best ITS bid or offer cannot be identified without a full set of regional quotes, because a regional quote that is noncompetitive when issue may become competitive when the prevailing quote changes. However, as discussed later, the qualitative results remain the same when only NYSE quotes are used.
- 15 The findings in Table II provide only weak evidence for the prediction that larger trades involve higher liquidity premiums (e.g., Easley and O'Hara (1987)). This may be due to the pooling of different firms in the analysis, since firms with greater frequency of large trades are likely to have lower average liquidity premiums. Alternatively, the larger trades tend to be brokered nonanonymously, thus reducing the adverse selection costs. The large average liquidity premium for 1989 NYSE trades over 10,000 shares is due to outliers that do not affect the time-matched sample, since they do not have matching regional trades.
- 16 The exclusion of regional trades in the first and last ten minutes of trading ensures the distribution of matching NYSE trades has an equal chance of occurring in any of the ten minutes on either side of a regional trade. It also mitigates against the strong market trends at the opening of trading reported by Wood, McInish, and Ord (1985). However, none of the main results are changed if regional trades in the first and last ten minutes are included.
- 17 Price slippage is a natural consequence of adverse selection costs as market makers adjust prices to reflect the information revealed in incoming trades. See Glosten and Milgrom (1985) or Easley and O'Hara (1987) for formal treatments. Empirically, Hasbrouck (1988), Lee and Ready (1991), and Petersen and Umlauf (1991) show that buys (or sells) tend to be followed by upward (or downward) revisions in the specialist's quote. Also see Perold (1988) for an alternative way to measure slippage costs. Perold's "implementation shortfall" approach compares the actual profit from a real portfolio to a paper portfolio. It cannot be used here since no information is available about an order's time of origination.
- 18 More recently, some regional and OTC market makers have established methods to improve price execution by exposing an investor's order inside the quoted spread for a limited period of time. A primary example of this is Madoff Investment's MISSION system, implemented in the latter part of 1990. These price improvement algorithms may improve NASD and regional test results for future studies using post-1989 data.
- 19 T4 is classified as a buy in the Lee and Ready (1991) algorithm because it is executed at the ask price. Note that it is also a buy using the "tick test" (based on the direction of the previous price change). It would be classified as a sell using the "reverse tick test" (based on the direction of the next price change), but Lee and Ready (1991) show the reverse tick test is generally inferior to the tick test.
- 20 The flow of trading volume is not a comment about investor rationality. Investors may be fully rational, but not informed with respect to this aspect of their execution costs. Alternatively, investors may be attracted to the regional markets by factors other than price execution.
 - 21 Two years of data cannot provide strong conclusions. Future COPYRIGHT 1993 American Finance Association

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Analysis

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The house of games. (New York stock exchange) (includes related articles on program trading, lessons of October, three-minute NYSE event, high technology access, and specialist trading)
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ABSTRACT: The New York Stock Exchange (NYSE) tries to change computer-triggered trading schemes and restore investor confidence after the Oct 19, 1987 stock market collapse. NYSE plans to overlay information systems with express lanes, collars, and circuit breakers, but NYSE is not dealing with the fundamental weaknesses in its information systems. Weaknesses include the inability of the Designated Order Turnaround System to automate the manual execution of trades, and limitations with the Intermarket Trading System, which links regional markets and the NYSE. Alternatives to the NYSE information systems include the Peake, Mendelson, Williams trading system and the Integrated Computerized Trading System. Competition from other securities markets and investor shifts to automated, open market alternatives may force the NYSE to change its information system.

TEXT:

THE HOUSE OF GAMES

Ask the American in the street what computers and the people who administrate them have done for the country lately. Chances are that the response will include some reference to the stock market collapse of October 19, 1987--Black Monday.

Responsibility for the sickening plummet in stock prices that day has widely been assigned to a single primary influence: computer-triggered trading schemes, commonly known as program trading. In the intervening period, the use of program trading has been curtailed both voluntarily and through rule changes—although not nearly so much as the public has been led to believe—primarily as a means of restoring investor confidence in the New York Stock Exchange.

With program trading under control, then, is Wall Street's house in order? Not by any stretch of the imagination. In fact, months after the crash, James Brady, chairman of the Presidential task force—the Brady Commission—convened to study the crash, continued to warn of residual danger in market mechanisms. "We are looking down the barrel of a gun," Brady said, "and it's still loaded."

The immediate post-crash indictment of program trading by the vested interests on Wall Street, including the same brokerage firms that have continued to execute massive program trades every day on behalf of institutional clients, has since evolved into one of the biggest diversionary maneuvers since public opinion was first manipulated.

It has been manifest in some rather strange gimmicks, like the New York Stock Exchange's "express lane" service. That service, announced with much fanfare in July, stands to have no profound effect on trading dynamics. Under the rule, slated to be in effect by year's end and officially dubbed the Individual Investor Express Delivery Service,

whenever the Dow Jones Industrial Average moves 25 points from the previous day's close, the NYSE's Designated Order Turnaround (DOT) processing system will give priority to the routing of simple market orders (those submitted for execution at whatever the current price) submitted by individuals over those submitted by institutions. The new rule, however, applies only to market orders of 2,000 shares or fewer, and these orders will still have to compete, at the conventional disadvantage, with those of insiders on the trading floor (see "The Myth of High-Tech Access," page 53).

The overriding irony is that while rampant automation, on the traders' side, has been made the scapegoat for the market's woes, it is the inadequacy of its own information processing systems that keeps the 19th-century New York Stock Exchange from effectively participating in late 20th-century market dynamics. Consider the following evidence.

In its report on the crash, the Securities and Exchange Commission, the body charged with regulating the securities markets, called program trading "a significant factor in accelerating and exacerbating the declines." The SEC pointed out that such trading accounted for 20 percent of the volume in Standard & Poor's 500 stocks on Black Monday. That figure may not sound impressive. It means, after all, that 80 percent of the trading in those stocks came from sources other than program trades. The SEC pushed the point, however, by demonstrating that program trading "totaled more than 60 percent of S&P 500 stock volume in three different 10-minute periods" on October 19.

To a number of expert observers, that statement borders on flimflammery. Franklin Edwards, Arthur Burns professor of free and competitive enterprise at Columbia University in New York, observes that any analyst can easily pick an arbitrary, small time interval that shows an individual trader accounting for any proportion of trades that the analyst wants it to account for--even 100 percent. "Evidence drawn from discretionary short intervals of time is so arbitrary that its meaningfulness is open to serious question," Edwards says.

The New York Stock Exchange imposed—then voted to withdraw—a "collar" barring the use of DOT for program trades whenever the Dow Jones Industrial Average moves 50 points during a single trading session. The public and press applauded, but market insiders told DECISIONS that the collar—which should expire by the end of this year—affects only those brokerages that don't have enough employees on the trading floor of the exchange. For those that do, it's merely an inconvenience, forcing them to distribute their orders for program trades manually. For instance, when traders for Shearson Lehman Hutton see the Dow's movement approach 49 points, according to John Baker, executive vice president of equity trading systems at the firm, "we load up a bag with preticketed orders and just send it down to the floor." Baker calls the NYSE's DOT collar "silly," but at the same time he stresses that his firm executes program trades only for its institutional customers, and voluntarily abstains from using them for its own account.

Richard Grasso, NYSE president, defends the collar as an "experiment" in dealing with price volatility. "The process of going manual does in fact slow the [program trading] strategy down," Grasso says. "And in some people's minds, it changes the economics of the transaction, widening the cost of operations."

How serious was this experiment? In early July, Grasso told DECISIONS that the collar had been used four times (including at least once when the market went up too fast). "The responses I've heard have been generally positive," he said, while noting that there was "not a sufficient body of knowledge from which to draw any definitive conclusions." Less than a week after Grasso tentatively endorsed the collar, the NYSE's board of directors decided to eliminate it.

The most drastic official response to the October crash took nine months to materialize, in the form of an agreement by the NYSE and Chicago Mercantile Exchange to coordinate a "circuit breaker" that would stop trading on the NYSE and related markets for an hour whenever the Dow Jones Industrial average moves 250 points during a session. A fall of another 150 points on reopening would trigger a two-hour halt. An equivalent movement of the Chicago Mercantile Exchange's Standard & Poor's 500 Index would set off similar halts.

The circuit breaker will go into effect upon final approval from both the SEC and the Commodities Futures Trading Commission. Approval is seen as likely since the same circuit breaker had been advocated in an earlier Congressional hearing by both market and regulatory body leaders, through the so-called Presidential Working Group.

However, members of the group openly acknowledged the risks in such a mechanism: As the breaking point nears, traders could panic into selling before the chance is gone, driving prices to the breaking point whether they would have gone there or not. Their decision: programmed stoppages are worth the risk.

Even if they are, there remains the question of why the advocates selected the kind of circuit breaker they did. Working group members cited a similar Brady Commission recommendation as buttressing their proposal; what they did not say, however, was that the Brady Commission made no stipulation that the halts be triggered by price swings.

Robert Wood, director of the institute for security market studies at Pennsylvania State University and a Brady Commission member, says the commission actually favored a circuit breaker pegged to imbalances in buy and sell orders, not price swings. Wood publicly pointed that out to Richard Ketchum, the SEC's director of market regulation, at a recent New York University seminar on technology and the markets. Ketchum responded that the working group had assumed the Brady Commission meant for price swings to trip the circuit breaker because, he claimed, "We don't know how to preset a halt based on imbalances."

That was in mid-May; less than two months later, the NYSE announced it would use its current computer system to track order imbalances in the 50 most valuable stocks and would temporarily halt trading in any of those stocks that experience an order imbalance of 50,000 or more shares.

Many observers see far more fundamental weaknesses in the market's information system than can be dealt with by overlaying it with express lanes, collars, and circuit breakers. Haim Mendelson, a professor at the University of Rochester (NY) School of Business Administration, compares today's related, but dissimilarly automated, financial markets to an automobile whose four wheels are powered by separate, unsynchronized motors: At low speeds, this vehicle appears to run smoothly, he says; at high speeds, it tears itself apart. Medelson points out that these interactive financial markets—the New York Stock Exchange, regional exchanges that trade NYSE stocks, the Chicago—based futures markets pegged to those stocks, and options markets pegged to the stocks and futures—all vary greatly in the degree of effective automation they have in place. This lack of coordination has come about, Mendelson says, because rather than developing an integrated system, most markets have merely automated components of their manual systems.

For example, the DOT system automates the initiation of trades on the New York exchange, but it does nothing to automate the execution of trades, which remains largely a manual procedure.

When record volumes drove the markets at record speeds on October 19 and 20, there was plenty of evidence that they were tearing themselves apart. The Intermarket Trading System that links regional markets and the New York exchange came to a virtual standstill. By using ITS, traders in the member markets are supposed to be able to find the other side of a deal by broadcasting commitments to buy or sell a given stock at a given price. Theoretically, ITS's broadening of the markets is a good thing for everyone--potential buyers and sellers alike. These benefits remain largely hypothetical, however, because ITS operates under limitations that restrict its usefulness, under the best of circumstances, and actually paralyzed it when its market-broadening effects were needed most--during the crash.

Under ITS rules, the commitments to trade sent to the New York Stock Exchange expire two minutes from the instant they're broadcast. Orders sent from New York to the regional exchanges are good for just one minute. While they're still active, commitments are displayed on terminals at trading specialists' posts. The specialist decides whether to accept the commitment and execute a trade for the broker in the regional exchange, or offer a better price and execute a trade locally. In either case, the specialist must make the decision and manually execute the trade.

Even during normal times, specialists can find it difficult to track

local bidding and simultaneously monitor the ITS screen. During especially active trading, local traders often won't even wait the minute or so it takes to execute an ITS order on a remote market, and will deal at a lower local price rather than trust the system. Thus, on an average day, 1.3 percent of ITS commitments sent to the New York Stock Exchange expire unexecuted. On October 19, 14 percent of them expired. According to the SEC, NYSE specialists never had the opportunity to accept some commitments "because the orders had expired before they arrived at the post" due to computer delays. ITS problems might have been even worse during the October crunch had a number of regional users not disregarded the system altogether.

The New York exchange wasn't the only ITS member with computer difficulties. According to the SEC, the Midwest Stock Exchange experienced 15- to 45-second delays in its ITS computer interface, leaving specialists as little as 15 seconds to get an NYSE-initiated trade executed.

Think of Haim Mendelson's vibrating, four-wheel drive automobile while reading this SEC description of the ITS system as the system operated at October's high speeds: "The lack of flexibility of ITS fragmented further the markets, reduced substantially the market-making capability of the regional exchanges, and cause [NYSE off-floor brokers] to place even more pressure on [the DOT system]. The unavailability of ITS ... contributed to decisions by certain regional exchanges to reduce their volume guarantees ... which, in turn caused [local brokerage] firms to reroute more orders to the New York Stock Exchange, placing even more pressure on its order handling system."

Junius Peake, an Englewood, NJ-based financial consultant, is a developer of the Peake, Mendelson, Williams (PMW) system—an automated, electronic trading system used at several securities exchanges, including those in Toronto and Paris. (His partners are Morris Mendelson of the University of Pennsylvania's Wharton School, and R.T. Williams, a Parsippany, NJ-based consultant.) Peake contends that the division of orders and executions into separate processes keeps ITS from being anything more than inefficient electronic mail.

"Think what might have happened," Peake proposes, "if the people who started the Pony Express had held a monopoly over communications when the telegraph was invented. Since they'd have wanted to protec their investment in horses and waystations, they might have said, 'Sure, set up the telegraph, but we're only going to use it to check on the progress of our messengers.' That, in effect, is what happened with ITS." While the system could have brought real efficiency to the market by executing matched orders entered through it, Peake points out, those with a monopoly on trading at the NYSE--the specialists--made sure ITS was endowed with only limited functionality.

The NYSE's Grasso concedes that ITS encountered "pockets of performance we were unhappy with" in October. But he argues that, while the system effectively links the markets, automatic execution of trades through ITS is neither feasible nor desirable. The delay between the broadcast of the ITS commitment and the order's execution gives additional traders the opportunity to offer better prices, Grasso believes.

Peake points out that only those on the trading floor are in a position to make better offers--by shouting them out. If a remote execution system were open to all traders, many more would be in a position to offer better prices. "Let's substitute computer power for lung power," Peake proposes.

The strength or weakness of ITS will grow as an issue in the next few months in light of the fact that it was originated in response to a mandate in the Securities Reform Act of 1975. That act called for the SEC to "facilitate the establishment of a national market system for securities." The U.S. Government Accounting Office, the investigatory arm of Congress, has begun looking into the SEC's compliance with the 1975 act to determine whether there should be a full investigation.

Perhaps the most significant single breakdown in market mechanisms last October was the "delinking" of the New York Stock Exchange and the Chicago Mercantile Exchange, where the S&P 500 futures are traded. In theory, futures prices should relate directly to the prices of the underlying securities. This allows trading in futures instead of the actual

stocks; thus, an investor who decides his stock holdings are too risky can then hedge his position by selling a futures contract equivalent to the amount of stock he'd otherwise have to unload. Portfolio insurance is a term applied to a complicated set of methodologies involving the use of hedges.

Because they are traded separately, however, futures and stock prices don't always exactly match. These fleeting variances present an opportunity to the index arbitrageur, a trader who seeks to lock in instant profits by simultaneously buying in one market and selling in the other. Because they can jump on the spread the instant it materializes, arbitrageurs can win no matter which way the markets move. Their ultimate profits, however, depend on their ability to execute trades in hundreds of stocks—a program trade—before prices change and erase the opportunity. The net effect of this activity on the markets is to bring the prices of both futures and stocks back into line. Thus, the arbitrageurs provide a material link between the two markets.

In a nutshell, here's what happened to the arbitrage (program trading) that would have linked the markets on October 19: As trading on the NYSE became chaotic, arbitrageurs didn't dare venture in--even though a substantial spread occurred between futures and stock prices--because they couldn't be sure of executing their programs on time. The spread had opened in the first place largely because practitioners of portfolio insurance, seeking to reduce the risk of holding securities, had tried first to sell in the futures market. Ordinarily, the arbitrageurs, performing their linking function, would then have transferred such a sell-off to the stock market. But the arbitrageurs were out of the game, and the markets were delinked; the portfolio insurance investors were forced to go straight to the stock market to unload their securities in massive program selling.

In effect, the NYSE's collar on program trades would also tend to delink the markets by making it somewhat harder for arbitrageurs to operate. Thus, by dropping the collar and agreeing to coordinate the circuit breaker with the Chicago Merc, the NYSE finally conceded last month that the two markets function as one. Still, it did nothing to address the underlying cause of the two markets' unraveling in October--the inability of its own specialists to execute orders on time.

What was the holdup? Failure of the operational systems supporting the market certainly played a part (see "The Lessons of October" on page 47). The NYSE has since increased its computer system's capacity, but many observers see the NYSE's specialist trading structure as the real crux of the problem. It is these brokers who must execute each and every trade, and who, therefore, stood fast at the bottleneck on Black Monday.

The Secuities Industry Automation Corp. (SIAC), the NYSE's data processing service, is in the process of equipping specialists with "electronic books," display terminals that help them manage the incoming order information that they previously received via slow printers and actually scribbled into loose-leaf binders. The electronic book is a prime example of automating the status quo: While it makes the specialist's job somewhat easier and eliminates the printers that helped drag the system down on Black Monday, it does nothing to address the complex of problems the specialists faced that day or to effect any real change. The specialist still stands at his post at the climax of a trade, putting together orders coming from the electronic system and from traders on the floor, bargaining with the "crowd," determining a price and, finally, okaying the trade. Not only does this take time, but it also limits the number of players in the auction. Those on the floor can adjust their orders based on floor information, including information on orders coming through the DOT system; those on the outside don't have access to the floor information and, therefore, don't really compete.

This limitation on participation in the market relates to the second, perhaps more fundamental, weakness in the specialist system: the question of liquidity, the speed at which securities can be turned into cash.

A specialist firm holds a monopoly franchise to execute trades in a given stock in return for its pledge to provide a continuous, orderly market for it. This means that if there is no immediate bidder for a sale, the specialist is supposed to buy and hold the stock until one can be found. Even in normal times, this function carries some risk, and the

specialists extract a price for assuming it. According to an unnamed government source quoted in The New York Times, the 54 NYSE specialists netted \$369 million in earnings in 1987, despite losing \$166.7 million in October.

Yet on a day like October 19, with lots of sellers and almost no buyers, the specialists simply stopped accepting that risk. That is, they temporarily halted trading in some stocks while they looked for buyers. Few observers blame them for this. To have done otherwise would have been to commit financial suicide; as it was, the October losses were not insignificant. Even if the specialists had continued buying when no other buyers could be found, it may not have made any difference. "No matter how much capital you threw in front of that speeding train on October 19," claims Richard Grasso, "the results would have been the same."

Even Junius Peake, a critic of the specialist system, doesn't fault the specialists' performance on Black Monday. But the true providers of liquidity to the market, Peake argues, are not the specialists but the buyers and sellers. A fully automated trading system could amplify that liquidity by bringing buyers and sellers together much more quickly and efficiently.

The system Peake would like to see implemented would allow traders to enter bids to buy and offers to sell stocks into a computer system that would automatically execute them against each other on a strict price-time priority. That is, the highest bids and lowest offers would always have priority for a trade, and among equal bids or offers, those submitted first would have priority. The computer would keep an unmatched bid or offer on the system until the opposite side matched it or until the trader withdrew all or part of it.

The New York Stock Exchange, as well, says specialists must give price-time priority to orders on their books. But an order has no priority standing at all until the specialist makes a bid or offer based on it. Once a trade has been executed at the bid or offer price, clearing some or all of the orders at those prices, the next bid or offer takes priority. Thus, a bid shouted by a trader at the specialist's post can immediately seize priority of execution based on price, even though any number of prior orders are on the books.

By the time news of an initial trade reaches those ordering from outside—only a matter of seconds via conventional information systems on a normal day—and they can respond with a new order, the active trader on the floor will always win the second trade. Further, that floor trader today is also likely to have the advantage of a good look at the specialist's book. Rules still say the book is confidential, but, in practice, specialists routinely show their books to traders on the floor.

According to Grasso, the NYSE is now arranging to disseminate, through information vendors, the specialists' "supply-demand equations," which are based on "the orders on the book, what the specialist is willing to do, and what the crowd is willing to do." Broadcasting the supply-demand equations, however, will not be accompanied by any change in the way specialists conduct auctions.

Under Peake's PMW system, everyone logged on can watch trades as they execute and see all bids and offers as they enter the system. On a day like October 19, Peake says, potential buyers could test for bottom prices by setting out bids for small amounts at various levels and watching the way the market reacts. Traders located across the country would themselves provide the liquidity. Direct access would be limited only by proof of ability to fulfill a trader's financial obligations, a requirement any market would enforce.

At the University of Rochester, Haim Mendelson has also designed an alternative, fully automated market system. Along with Yakov Amihud of the New York University School of Business Administration, mendelson has proposed a hybrid market composed of a continuous auction component, similar to that used on the NYSE, combined with a clearinghouse, or "call" market. In the clearinghouse procedure, traders continuously enter orders, and, periodically, the computer generates a price that matches the greatest number of buy and sell orders. Those orders are then executed at the clearing price, as are all orders at better prices.

Some markets already use a clearinghouse procedure for market

openings only or for single securities at a time. The Amihud-Mendelson system, called by its two designers the Integrated Computerized Trading System (ICTS), would clear all securities in the market simultaneously. This would allow traders to enter sophisticated orders contingent on market conditions—for example, "if the price of Ford stock rises above \$40 and that of GM falls below \$60, sell 10,000 shares of Ford and buy GM." Today, because of the potential lag in executing the different components of such orders and because just entering the order can move a price away from the target, this kind of trading is complicated and difficult.

What if this simpler methodology had been available to traders on October 19? Mendelson believes traders would not have been afraid to enter the market because their orders could have been made contingent on an optimal scenario. What actually happened, of course, was that a lack of information kept almost all potential buyers out of the market that day.

An important feature of ICTS is that it would retain a specialists' role. Under ICTS, specialists would still operate a continuous auction market; traders could choose to lodge orders either there or in the clearinghouse market. The continuous market would give traders a shot at immediate floor trading, for which they would pay the specialists their price, just as they do today.

One of the ways specialists charge for their services is through the bid-ask spread, a difference between the price to the seller and the price to the buyer (see "Portrait of a Specialist," page 54). The specialist determines the size of the spread according to an assessment of the risk of holding the stock during the time it takes to find a buyer, among other factors. Consequently, the specialist's bid-ask spread is an indication of the stock's liquidity.

Liquidity adds value, no matter what kind of item or instrument it is associated with. Consider the different returns on certificates of deposit: Investors are willing to take lesser returns on-pay more for-certificates with an earlier expiration date. Mendelson applies the same principle to stocks: The faster and easier it is to sell a given stock, the more an investor should be willing to pay for it.

Indeed, a study of the NYSE's listed securities by Amihud and Mendelson found a direct correlation between bid-ask spreads and issue prices over a 19-year period. For example, a stock trading at \$50 with a spread of 2 percent would typically increase in value, if the spread were reduced to 1 percent, to \$56. Thus, by making it easier for traders to enter and use the markets, Mendelson believes, applied information technology could raise the overall value of the stock market by some \$70 billion.

Say he's only half right—that's still enough to pay for the most sophisticated computer system imaginable and get back a nice piece of change. But who is capable of taking the lead? Judging from the fate of ITS, an effective government mandate seems unlikely. The markets themselves have always resisted fundamental change.

Some say only increased competition from other domestic and overseas securities markets can spur innovation on Wall Street. The London and Toronto stock exchanges are ofted cited by experts as being far ahead of U.S. markets in their use of technology. So far, the newer electronic markets, such as Instinet and the regional Cincinnati Exchange, have made only modest inroads on the New York Stock Exchange's business. But the hundreds of thousands of individual investors scared out of town on Black Monday remain leery of action on the Big Board. Given a basic education in the essential advantages, they could begin to move in larger numbers to the guaranteed execution and higher liquidity of the automated, open markets.

An old market adage has it that orders attract orders. One day, the alternatives may achieve enough critical mass to at least force the stock trading establishment to stop playing games with information technology.

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The house of games. (New York stock exchange) (includes related articles on program trading, lessons of October, three-minute NYSE event, high technology access, and specialist trading)

3/9,K/1 (Item 1 from file: 810) DIALOG(R)File 810:Business Wire (c) 1999 Business Wire . All rts. reserv.

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STATE STREET BSE: State Street and the Boston

Stock Exchange Announce Exclusive Agreement On State Street's Bond Connect in the United States

August 19, 1998

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BOSTON--(BUSINESS WIRE)--Aug. 19, 1998--

Boston Stock Exchange Will Serve As System Administrator For All U.S. Fixed-Income Securities Transacted Through Bond Connect

State Street Corporation (NYSE: STT) and the Boston Stock Exchange (BSE) announced today an exclusive agreement for the administration of Bond Connect(SM), State Street's advanced electronic execution system for fixed-income securities, developed with partners Bridge Information Systems and Net Exchange and introduced in May 1998.

Bond Connect - which matches buy and sell orders electronically, using a complex algorithm - addresses limitations in the traditional trading environment by offering investors the ability to formulate orders linked to portfolio strategy, maintain true anonymity, maximize liquidity, reduce reliance on risk capital and achieve price improvement. Operating as a call market, Bond Connect provides users with the opportunity to reach a diverse mix of market participants at a specific point in time.

The BSE will be the exclusive U.S. exchange participant in Bond Connect, initially providing computer system administration for the electronic trading of U.S. Corporate Debt, U.S. Government Debt, Agencies, Mortgage-Backed Securities, and U.S. Asset-Backed Securities in the United States.

Said Andy Howieson, senior vice president of State Street Information Partnerships, "We are delighted to have the Boston Stock Exchange as our strategic partner in providing electronic trading and execution services to the investment community. This alliance underscores both parties' shared mission to provide innovative solutions to the needs of institutional investors. With complementary skills and common objectives, State Street and the Boston Stock Exchange together are particularly well positioned to meet the demands of an increasingly sophisticated marketplace."

"The Boston Stock Exchange is pleased to be the exclusive exchange partner involved in the launch of the Bond Connect fixed-income trading system," said James B. Crofwell, president and chief operating officer of the Boston Stock Exchange. "As a national financial marketplace equipped with leading trading technologies, the BSE provides substantial expertise in the complex systems and operations of securities markets. Our alliance with State Street

complements the Exchange's ongoing strategic objective to expand our electronic trading capabilities while broadening our business base."

Bond Connect was developed to tap the enormous potential in fixed-income electronic trading. According to industry analysts, by the year 2000 more than 10% of fixed income trading volume in the United States (about \$80 trillion in 1997) will be executed electronically. Bond Connect builds on State Street's commitment to developing electronic trading solutions - including Lattice Trading for equities and FX Connect for currency, part of State Street's Global LinkSM electronic suite of products.

State Street Information Partnerships was formed in 1996 to provide focus on State Street's development of pre-trade information services, broader transaction execution capabilities and the integration of post-trade information services. Bond Connect will be offered through State Street Brokerage Services, Inc., a wholly owned subsidiary of State Street Bank and Trust Company, dedicated to providing institutional investors with innovative, cost effective, brokerage services around the world.

The Boston Stock Exchange, Inc. (BSE) is a national stock exchange that serves investment institutions, brokerage firms and public companies through the operation of a high quality, specialized and technologically advanced marketplace for equities trading. Widely regarded as a leader of automated trading products and services, the BSE offers BEACON, a fully-integrated, electronic trade information and execution system, and BEAM, an on-line, real-time risk monitoring and surveillance system. The BSE trades over 2,000 securities in competition with other market centers, lists 160 public companies, serves over 200 member organizations, and transacts over 10 million shares daily. In 1997, the BSE traded 1.9 billion shares of listed equities amounting to a market value of over \$72.2 billion.

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